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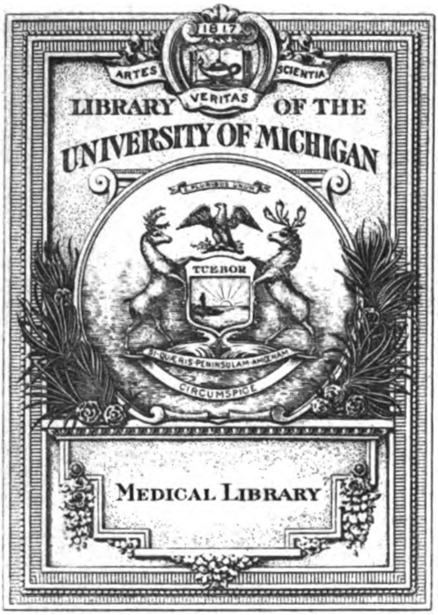

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Selections.

On the Theory and Therapeutics of Convulsive Diseases.

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[Continued from last number.]

IN the last lecture I spoke of *simple epilepsy*, and endeavored to show that the facts are more in accordance with the theory of muscular motion propounded in the first lecture than with that ordinarily received theory which would ascribe the convulsion to overstimulation on the part of one or other of the nervous centers. In doing this, I insisted particularly upon the *asphyxial state* of the circulation and respiration, and argued that the *want of red blood during convulsion* must necessitate at that time a corresponding *want of action in every one of the nervous centers.* In the present lecture I propose to continue the inquiry, and see whether the same theory is applicable to convulsive diseases generally. I also propose to add a few words upon the therapeutics of these maladies.

I.—THE THEORY OF CONVULSIVE DISEASES GENERALLY.

In proceeding to a cursory examination of convulsive diseases generally, I shall divide these diseases into three categories, of which the distinctive signs respectively are tremor, convulsion, and spasm. In the examination itself, I shall do as I did when speaking of simple epilepsy, and consider, first, the condition of the circulation and respiration, and afterwards review the several nervous phenomena, other than tremor, convulsion, or spasm, which must not be passed by in silence.

1. The Theory of Tremor.

The category of convulsive diseases of which the distinctive mark is *tremor*, includes the tremblings of delicate and aged persons, of paralysis agitans, of delirium tremens, the rigors and subsultus of fevers, and the shakings of slow mercurial poisoning.

1. The state of the circulation and respiration in these several conditions is sufficiently obvious. There is no doubt that both these functions are much depressed during *common trembling;* for this is evident, as well in the paleness and chilliness of the person trembling as in the decided relief afforded by wine. In *delirium tremens,* the perspiring skin, the cold hand, the quick, compressible, fluttering pulse, are all significant and unmistakable facts. It is evident, also, that the trembling is connected with this state of things; for if the dry skin and excited pulse of true meningitis make their appearance, the trembling is at an end. On the other hand, an argument to the same effect is to be found in the fact that tremor is exaggerated into subsultus, or even into convulsion, as the heart and pulse fail in the downward course of the disorder. *Rigor,* moreover, is coincident with a sense of coldness, a feeble pulse, a sunken countenance, a corrugated skin, and *subsultus,* with a pulse faltering in its final throes; and that this coincidence is not accidental, is seen in the fact that rigor disappears as the pulse and warmth return, and that subsultus may be checked for the time by the use of wine. And in *mercurial tremor,* an inference as to the real state of the circulation may be drawn from the general practice prevailing amongst the subjects of this disorder of resorting to gin and other stimulants to make themselves steady.

2. The nervous phenomena, other than tremor, are in accordance with the foregoing facts. In a bout of *ordinary trembling* the mental faculties are all unstrung; and in the permanent and extremest form of this trouble, as in *paralysis agitans,* they have altogether succumbed before the inroads of age or disease, and the sufferer lives only to sleep and eat. In *delirium tremens* the mental state is passive in every point of view. The patient lies unmanned, as it were, before some dim phantom of evil; or if not—if, that is to say, active delirium takes the place of the delirium tremens, and other symptoms betoken the existence of active inflammation—then the affection ceases to be delirium *tremens,* for the trembling has disappeared. In the initial *rigors* of fever, the mental state is one of dejection, languor, stupor; in *subsultus,* it is one of vague dreaminess, or of drowsiness not far removed from mortal sleep. In *slow mercurial poisoning,* the failure of the mental power keeps pace with the decay of the bodily strength, and the condition is one of premature old age.

In the different forms of tremor, therefore, the state of the nervous system, as reflected in the condition of the mind, is one of comparative inactivity. Nor is it easy to suppose that the condition of the brain is different from that of any other part of the nervous system; for if a due supply of blood be necessary to the due exercise of the different nervous functions, as it undoubtedly is, then it follows that the medulla oblongata, the spinal cord, and every other nervous center, must be in a similar state of comparative inaction during trembling.

II. The Theory of Convulsion.

The second category, in which *convulsion* is the distinctive feature of the muscular disturbance, is divided naturally into two sections by the absence or presence of consciousness during the convulsion. Where the consciousness is preserved, the convulsion may be called *simple;* where consciousness is in abeyance, the convulsion is *epileptiform. Simple convulsion* occurs in hysteria, in chorea, and in those strange affections which take an intermediate position between the two, as the dance of St. Vitus and St. John, tarantism, and other affections of the kind. *Epileptiform convulsion* includes the convulsion connected with certain diseases of the brain—chronic softening, chronic meningitis, tumor, induration, hypertrophy, atrophy, congestion, apoplexy, inflammation,—with fever, with uræmia and other suppressed secretions, with "irritation" in the gums and elsewhere, and with death from hæmorrhage and other causes.

A. *The Theory of Simple Convulsion.*

1. The pulse of persons who suffer from *hysteric convulsion* is generally soft, quick, and variable. The skin is frequently pale, and the hands and feet are often subject to chilblains, even when the weather is not very cold. Nor is there any real excitement of the circulation during the paroxysm. Indeed, the mode of breathing, which is slow, embarrassed, and accompanied by deep sobs and hiccup, is altogether incompatible with anything like excitement in the circulation. There is, moreover, some reason to believe that unnecessary stress has been laid upon a disposition to inflammation as one of the characters of hysterical subjects; but, be this as it may, there is no reason for supposing that any inflammatory disturbance of the circulation in any organ has anything to do with the symptom with which we are here concerned—the convulsion.

As in hysteria, so in *chorea*, the circulation is subject to considerable fluctuations, but the habitual state is one of marked depression. The pulse most generally is quick and weak, and the heart is readily thrown in a state of palpitation. In many cases, also, as additional evidences of a feeble circulation, the face, lips, gums, and tongue are pale, the skin is pasty, and in extreme cases the serous cavities are more or less water-logged. In some instances there may be all the signs of actual chlorosis; in other instances there may be predisposition to rheumatic fever, but this predisposition cannot be urged as an objection to the idea, now very generally admitted, that chorea is essentially a feverless malady; for it is certain that chorea is never coincident with rheumatic fever.

2. The habitually feeble state of the brain in persons subject to *hysteric convulsion* is shown in a variety of ways—indecision, irresoluteness, fickleness, pliability, over-sensitiveness, fidgetiness, and so on. And in the fit the will is altogether in abeyance, and the mental state is one approaching very closely to unconsciousness. The condition of the circulation at the time of the convulsion is also incompatible with any but a very low degree of action in any one of the nervous centers. Nor is it necessary to suppose that the uterus has anything to do with hysteric convulsion beyond this—that many common and important causes of weakness and exhaustion refer more or less directly to this organ.

The subjects of *chorea* present the same evidences of mental feebleness as those which are met with in hysteria—the same vacillation, irrationality, inordinate sensitiveness, timidity, fretfulness, irritability. It is to be supposed, also, that the mental state reflects the state of all the nervous centers, for the circulation is manifestly unequal to maintain the action of these centers at the normal pitch. Nor is any contrary evidence presented after death. In a certain number of cases, no doubt, traces of inflammatory action have been found in or on the brain or spinal cord; but as such traces are not found in the majority of cases, it is evident that inflammation of the brain or cord cannot be regarded as essential to chorea. What the occasional traces of inflammation may signify is another matter. It may be that the inflammation preceded the chorea, and left the nervous center damaged, and to that extent weakened; and this opinion would not seem to be improbable where the signs of mischief were evidently of no very recent date. It may be that the inflammation has been a consequence rather than a cause of the chorea—the nervous centers in connexion with the muscles, like the muscles themselves, breaking up, as it were, from sheer fatigue. At all events, it may be seen now, and will be seen more distinctly presently, that inflammation of the brain or cord is not to be regarded as a direct cause of any kind of choreic movement.

B. *The Theory of Epileptiform Convulsion.*

1. In a case of general epileptiform convulsion, the state of the circulation is as far removed from anything like excitement as it is in simple epilepsy.

There is, indeed, the same failure of the pulse at the commencement of the fit, and the same state of positive suffocation during the fit. In the case of partial epileptiform convulsion, the only difference is one of degree. In any case, the pulse is scarcely to be felt at the beginning of the paroxysm, and everything shows that the circulation is at a very low ebb; and if the pulse acquires any semblance of power as the paroxysm proceeds, the dusky and livid color of the face, the interrupted breathings, and other unequivocal signs of suffocation, afford sufficient proof that this phenomenon is due, not to the increased injection of red blood into the arteries, but to the impeded circulation of *black blood*, as explained in the last lecture.

Nor is there any evidence of a contrary character in the antecedent history of epileptiform convulsion, for in those cases in which the malady is of an inflammatory or febrile character, it will be seen that the fit occurs either in the period of prostration which precedes the development, or else in the period of collapse which comes on after the dying out of the fever or inflammation.

In *chronic softening of the brain*, the habitual coldness of the hands and feet, the weakened and perhaps degenerated heart, the atheromatous or calcareous deposits in the arterial coats, are amongst the many signs which show the innate weakness of the circulation—a weakness to which fever and inflammation are alike congenial.

In *chronic meningitis*, as might be expected from the unmistakable evidences of a scrofulous habit, and from the state of weakness and exhaustion which are so generally present, the pulse, for the most part is quick, weak, and much affected by changes of posture. There may be some hectic excitement in the evening, the cheeks flushing, the eyes shining, and the aching head becoming a little hotter than it was before; but this faint excitement is not sufficient to raise the pulse to a normal pitch of activity. In no case, indeed, is this reaction of the circulation a marked and conspicuous phenomenon, and in the majority of instances it is scarcely sufficient to impart even a semblance of power to the weak and feverless pulse. And if there is little vascular excitement in ordinary chronic meningitis, there is, if possible, less in that form of the disease which is known as *chronic hydrocephalus*.

In *tumor of the brain* the pulse is quick, weak, irritable, fluctuating, or if not, it will be so as soon as pain, want of sleep, and despondency—common symptoms of tumor,—have had time to bear their natural fruit of weakness and exhaustion.

In *induration of the brain*, such as is met with in chronic lead-poisoning, &c., the phenomena presented by the circulation differ very little, if at all, from those which occur in advanced stages of ordinary epilepsy, and any difference there may be, is one which indicates a state still more fully removed from fever.

In *atrophy of the brain*, as in simple epilepsy, there is no evidence of anything like excitement in the circulation.

In *congestion of the brain*, the head and face are congested and dusky, the lips purplish, the jugulars full, the pulse and respiration slow and labored, the hands and feet habitually colder than the head. There are, indeed, many evident signs which show that the circulation is not carried on with proper vigor, and which appear to point to imperfect arterialization of the blood as one cause of this defect.

In *apoplexy* the convulsion is most apt to happen at the end rather than at the beginning of the period of coma, when the purpled lips and the inadequate breathings show that the respiratory changes are rapidly failing. Or, if it happens at the beginning, it is in those forms of apoplexy in which the condition of the circulation at the time is more akin to collapse than anything else, and not in those forms in which there is an excited pulse, and strong determination of blood to the head.

In *inflammation of the brain*, the condition of the circulation may vary a good deal with respect to the inflammation, but little with respect to the convulsion.

Simple meningitis begins with paleness of the skin, a feeble, depressed pulse, cutis anserina, vomiting, rigora, perhaps convulsion. Then follow rapidly symptoms of high febrile reaction and cerebral inflammation, the pulse becoming hard and frequent, the breathings irregular and oppressed, the skin, particularly the skin of the head, hot and burning. After continuing for two or three days, these symptoms of high febrile reaction give place to an opposite state of things, in which the pulse loses its force, and becomes weak, small, irregular, and the breathings are interrupted by frequent sighs and pauses. Or, if at this time the pulse retains any degree of resistance, it is evident, from the dusky color of the skin and the suspirious and labored respiration, that the whole of this resistance is not due to the injection of arterial blood into the artery. Now it is in this stage of collapse, or semi-suffocation, which follows, or else in the cold stage in which precedes, the febrile and inflammatory excitement, and never during the actual period of excitement, that the convulsion happens. And this rule is constant. Indeed, the history of simple meningitis shows most conclusively that vascular excitement is as incompatible with convulsion as it is with rigor and subsultus.

In *tubercular meningitis*, the pulse is weak and variable from the first, now quick, now comparatively slow, rising in frequency when the head is raised from the pillow, and falling when it is laid down again; and from the very first the respiration is irregular, unequal, and interrupted with frequent sighs and pauses. For some time there may be a little distnrbance of a hectic character, particularly in the evening, but this soon comes to an end, and the prostrate pulse forgets to put on even this faint semblance of fever. In some cases, there may, indeed, be a short stage of fever, and something like active cerebral inflammation, especially in young children; but as a rule the symptoms are altogether of a passive, non-febrile, non-inflammatory character. In any case, however, the convulsion is connected with a depressed state of the circulation, and never with febrile and inflammatory excitement, if such state there be.

In *rheumatic meningitis*, also, there is little or no febrile excitement from the beginning, and the pulse has become powerless and utterly weak before the convulsion happens.

In *general cerebritis*, the pulse, at first slow, soon becomes variable and readily affected by changes of posture; the respiration, also, is very variable and suspirious. From the first, indeed, there is scarcely any fever, and little heat of head, except the phenomena of cerebritis are mixed up with those of simple meningitis; but if such symptoms are present, they soon pass off, and give place to symptoms of slow sinking—a state in which hour by hour the breathing is more interrupted with sighs and pauses, and the pulse more powerless, unless it may have a fictitious power from the presence of more or less black blood in the artery, in which case the dusky countenance and the purple lips will show very clearly that any increased injection of red blood is at this time out of the question.

In *partial cerebritis* there is even less febrile disturbance than in general cerebritis, and at no stage of the malady is there anything like increased vascular action.

The immediate antecedents of the epileptiform convulsion which may attend upon the onset of *fever* are—paleness of the face, coldness of the hands and feet, a feeble, soft, and fluctuating pulse, a respiration that is short, accelerated, and interrupted by frequent sighs. The immediate antecedents of the convulsion which may attend upon the end of fever are, a weak and thready pulse, a frigid hand, and lungs too much gorged with blood to allow of any proper respiration—a state in which, febrile reaction having long since died out, the hand of death is already upon the heart or brain. The convulsion which may attend upon fever, indeed, may take the place either of rigor or subsultus, and like these forms of muscular disturbance, it is associated, not with the state of febrile excitement, but with a state of depression, which is as much below the natural standard as any febrile excitement is above that standard.

In the convulsion connected with *dentition*, there may have been little or no previous fever, and by quick degrees the pulse may have become excessively weak, or there may have been symptoms of cerebral inflammation with high fever, and afterwards a state bordering very closely upon collapse. In any case, the immediate antecedents of the fit are indicative of great vascular depression—great vascular depression brought on slowly without any very obvious fever or determination of blood to the head, or else that which precedes or succeeds active fever and determination. And so likewise with the convulsion which is connected with *worms* or other sources of irritation in the alimentary canal; for if there has been any febrile disturbance, this has passed off, and left the patient not only feverless, but pale and chilly. Nor is it otherwise with those forms of of convulsion which are referred to *uterine irritation*. In the convulsion connected with menstruation, the circulation is in the state in which it is in ordinary epilepsy or in ordinary hysteria; and a similar remark applies to several of the convulsions which may happen in the course of pregnancy. In the convulsion of flooding, the face and even the tongue is blanched, the hand frigid, the body bathed in cold sweat, the pulse fluttering and well-nigh imperceptible, the breathing a continuous sigh or gasp. In the convulsion occurring in labor without flooding, the head is often greatly congested, and the æration of the blood seriously interfered with, partly in consequence of the way in which the lungs sympathize with the semi-comatose brain, and partly because the regular expansions of the chest are interfered with by the constant efforts at straining. In such a case the pulse may be full; but if so, the venous color of the lips will show that this fullness is due to the circulation of black blood rather than to the circulation of red blood in the vessels. In the convulsion which may happen during puerperal fever, the vascular antecedents are the same as those which may happen towards the end of any fever. And lastly, the condition of the circulation before the convulsion which is referred to "irritation" of a sexual character, if it differs at all from that which is met with in ordinary epilepsy, differs only in being one of still deeper depression.

Nor is there any trace of vascular excitement before the convulsion which may happen in the *moribund state*. In the convulsion attending death by hæmorrhage or asthenia, the blanched face and tongue, the frigid hand, the sighing or gasping respiration, the faltering pulse, are signs which require no comment; and in the convulsion attending death by speedy or gradual suffocation, the state of things is equally opposed to the idea of vascular excitement; for how—to ask this question once more—can vascular excitement and a state of suffocation be compatible conditions?

In a word, there is no instance in which epileptiform convulsion can be supposed to have any connexion with an excited state of the vascular system, and there are many instances in which the circulation is as far as possible removed from such a state; and the only conclusion which can be drawn from these facts is one which seems to harmonize with the physiological premises, and with the previous conclusions respecting simple epilepsy.

2. In a case of general epileptiform convulsion, the mental faculties are as completely suspended as they are in epilepsy. The dilated pupil remains immovable under the brightest light; the ear is deaf to the loudest noise; and when the patient recovers—if he do recover—his memory is absolutely blank as to everything which happened during the fit. In partial epileptiform convulsion, such as occurs not unfrequently in chronic softening or tumor

of the brain, as in partial epileptic convulsion, the mental faculties may not be altogether suspended, and the memory is occasionally able to recall some of the circumstances attending the fit. In the case of general epileptiform convulsion, therefore, the condition of the mind is evidently one of *inaction*, and not of action. Of this there is no doubt. Nor can there be any doubt that the state of the mind is one of comparative inaction in partial epileptiform convulsion; for the utter bewilderment, the inability to collect and control the thoughts, the trepidation, and the want of power over the muscles, are all signs which cannot be mistaken.

It would seem, also, that the brain is not less inactive then every other center of nervous action, for (to repeat the argument already used so often) none but the very lowest degree of action is compatible with the circulation of unarterialized blood in the vessels. Nor is there anything contradictory to this conclusion in the facts which remain to be mentioned.

In *chronic softening of the brain* the fits are preceded by unquestionable, and often very marked, impairment of the mental faculties, and in some cases the mind may be a total wreck. Fire and energy are dying out and dullness and drowsiness point to the coming coma, of which they are the forecast shadows. The brain, also, is blighted, not inflamed. It is pallid, whiter than it ought to be, deficient in red spots, and in parts softer than natural; and, on microscopic examination, the softened substance is found to consist of broken-down brain tissue, with a greater or less number of cells containing oil, and sometimes reddened with blood-corpuscles, (for hæmorrhage is a common consequence of softening,) but without any of the products of true inflammation,—exudation and pus-corpuscles.

Impairment of the mental faculties, progressively increasing, is also a prominent symptom in *chronic meningitis*,—impairment which would seem to be more marked by peevishness, impatience, fidgetiness, and a disposition to delirium, than by dullness. The mind wanders a little in the evening or at night, and not unfrequently this wandering may settle down into insanity. Or there may be no positive symptoms of any kind. After death the principal sign of disorder is effusion of serum beneath the arachnoid or into the ventricles, and this is often the only sign. In some instances there may be congestion of the pia mater, or evidences of tubercular degeneration in this membrane and in the contiguous parts of the brain; but, as a rule, the appearances are altogether negative. Indeed, in some instances, where the quantity of effused fluid is large, as in chronic hydrocephalus, the brain has a blanched, bloodless appearance, and the effused fluid is much less rich in solid constituents than the serum of the blood—a fact which is somewhat calculated to show that inflammation has no share in its production.

In the majority of cases of *tumor*, the intelligence does not appear to suffer in any very marked manner, and when it is otherwise, it is owing, in some degree at least, to the presence of chronic meningitis. The pain, however, the want of sleep, the depression of spirits, all combine to exhaust the brain, and this exhaustion is generally shown by vagueness in the ideas, by inability to fix the thoughts, or in some other manner. Nor is the pain, which is usually so very prominent and distressing a symptom, an objection to the idea, that the brain is acting inefficiently in these cases. In many cases, indeed, pain in the head is a sign that the brain is insufficiently supplied with arterial blood, for it ceases, and gives place to delirium, when the arterial injection increases. Nay, in some instances there is reason to believe that the nervous energy is *lessened* during pain, and that pain may be as much a sign of want of action in a sentient nerve as spasm is a sign of want of action in a motor nerve. At any rate Professor du Bois-Raymond has shown that the nerve-current in the nerve of a frog fails when the cutaneous ramifications of the nerve are subjected to a treatment which must give rise to pain. But be this as it may in other instances, in tumor of the brain it must be difficult to regard pain as a sign of over-action, for the companion symptoms during life, and appearances after death, are alike opposed to such a conclusion.

In *induration of the brain*, there is as little evidence of any excitement in the mental faculties as in any of the previous cases, probably less; and the condition of the brain after death affords no countenance to the idea of inflammation, for the brain is harder, darker in color, drier, more bloodless than it ought to be.

In cases of *atrophy of the brain*, where the condition is congenital, the probability is that the patient is idiotic as well as epileptic. In cases of *hypertrophy of the brain*, which cases are occasionally met with in children, while the bones are sufficiently yielding to allow expansion in the enclosed organ, the patients have not had any other inconvenience beyond the deformity—a faint argument, possibly, that want of brain, and therefore want of cerebral action, had really to do with the convulsion which would seem to be a constant phenomenon in atrophy of the brain.

A person suffering from *congestion of the brain* is less "bright" than he was, his conceptions are wanting in clearness, he is deficient in the power of attention and application, his sight is dim, his hearing dull and perplexed with ringing or rumbling sounds, he is drowsy, and feelings of weight in the head and pain are familiar troubles. Everything, indeed, indicates an oppressed and inactive brain.

In *apoplexy*, the mental antecedents are those of congestion or softening, not of inflammation as such. There would, indeed, appear to be a strange absence of inflammatory tendency in the brain in apoplexy; and if there are any evidences of inflammatory action around the clot, it will generally be found that this action was anterior to the hæmorrhage in point of time—that, in fact, the blood had escaped in consequence of a previously softened state of brain. It is possible, also, that an argument in favor of a tendency directly opposed to the idea of inflammation may be found in the fact pointed out by MM. Andral and Gavarral, that the blood in apoplexy is deficient in fibrine; for if the effect of inflammation be to increase the amount of fibrine contained in the blood, it may be supposed that a deficiency of fibrine indicates a state of things which is the reverse of inflammatory.

Nor is there the least reason to believe that any over-action of the brain is concerned in bringing about the convulsion which is connected with *inflammation of the brain.*

In *simple meningitis*, convulsion may attend upon the very onset of the disorder. In this case, it coincides with the cold stage which ushers in the true inflammatory reaction, a stage of which the mental signs are, depression, confusion, perhaps drowsiness. Or convulsion may attend upon the period of final prostration which follows the true inflammatory reaction, a period in which the mind is rapidly sinking towards a state of coma. Convulsion may occur at one or other of these times, but it never occurs in the true inflammatory stage, when the pupil is contracted to the size of a pin's head, when the impatient sensitiveness of the eye and ear is scarcely to be quieted by absolute darkness or silence, and while there is agonizing pain in the head or fierce delirium.

In *tubercular meningitis* the acute pain, the wild delirium, the intolerance of light or sound, which mark the outburst of simple meningitis, are wanting, and the course of the disease is insidious. In ordinary cases, where the symptoms set in thus stealthily, the usual period for the convulsion is after the brain and the system generally have given many unequivocal signs of exhaustion. In other cases, where there may be more marked febrile disturbance, the convulsion may happen in the initial cold stage, or after the febrile symptoms have calmed down and left the system in a jaded and exhausted state. As a rule, however, the idea of inflammation has as little to do with this affection as with phthisis pulmonalis; for when the diseased products are examined microscopically, they are found to consist, not of products of inflammation, but of the well-known elements of ordinary tubercle.

In *rheumatic meningitis* the convulsion observes the same rule, occurring either in the initial cold stage of the fever, and preceding the accession of the violent pain and delirium, or else waiting until the excitement has passed off, and the patient is left drowsy and semi-comatose.

In *general cerebritis* anything like wild delirium or acute pain in the head is absent, unless the affection is complicated with meningitis; and the characteristic state is dullness and drowsiness, rapidly progressing into typhoid prostration. In *partial cerebritis* the course of the disease is less rapid, and the downward progress may be interrupted by pauses of longer or shorter duration, but in other respects its characters are the same. From beginning to end, in either case, there are no evidences of an excited condition of brain to be gathered from an analysis of the mental phenomena, or at any rate there are no such evidences at the time the convulsions make their appearance.

In *fever*, convulsion may precede the establishment of the febrile excitement, in which case the mental state is one of great depression, oppression, prostration, stupefaction. In other words, it may occur in the initial period of collapse or rigor—the cold stage; or it may occur in the final period of prostration, when a few incoherent mutterings are the only traces of the previous delirium—when the last traces of mental action are rapidly succumbing to the drowsiness of approaching death. It may occur at one or other of these times, but not during the active period of fever.

In epileptiform convulsion depending upon *retention of urine*, the patient before the attack is drowsy, stupid, listless, despondent, his eyesight dim, his hearing dull, his speech drawling; and in convulsion depending upon *retention of bile* delirium is at an end, and drowsiness has become well-nigh comatose before the time for the attack has arrived.

In difficult *dentition* the brain is exhausted by pain and want of sleep, and drowsiness is taking the place of fretfulness and wakefulness before the occurrence of the fit; or if there be any cerebral inflammation, the fit follows the rule which has been already laid down. In *worms*, and other forms of "irritation" in the alimentary canal, the mind as well as the body is not braced up to the proper pitch of health, and the patient is jaded, irritable, and drowsy. In convulsion arising from "*uterine irritation*" the mental state is that which belongs to either epilepsy or hysteria. In the convulsion of flooding the pupil is dilated, the thoughts are undefined and incoherent, and before the tossings change into convulsion the last trace of mental action has died out. In the other convulsion occurring during labor the brain is exhausted by pain and straining, and upon the point of lapsing into a state of coma when the convulsion happens. In the convulsion of true puerperal fever the mental condition is the same as in the convulsion of ordinary fever. And, lastly, the epileptiform convulsion referred to "sexual irritation" has the same mental accompaniments as ordinary epileptic or hysteric convulsion, one or other.

Nor can there be any doubt as to the condition of the brain connected with the *moribund state*. In death by hæmorrhage or asthenia, mental action fails *pari passu* with the flowing of the blood out of the vessels, or with the stagnation of the blood in the vessels, and the sufferer has become altogether insensible to pain and trouble before he is seized by the convulsion. And when death is brought about by suffocation, whether slowly or rapidly, it is no less certain that all mental action fails *pari passu* with the failure in the respiration, and that the last spark of mind has vanished before the time for the convulsion has arrived.

Whenever epileptiform convulsion makes its appearance, therefore, the attack is preceded by same evident failure in mental energy, and in several instances this failure is almost or altogether complete. Nor is it possible to suppose that this state of inaction is confined to that part of the nervous system which is the scene of mental life; for the depressed or oppressed state of the circulation which precedes the attack involves a corresponding degree of inaction in the complete chain of nervous centers.

In a word, there is nothing in the history of epileptiform convulsion which is not in perfect accordance with the history of simple epilepsy, or which may not be interpreted in the same manner.—*Lancet, Aug.*

(To be continued.)

On the Comparative Results of the Treatment of Croup by Tracheotomy and by Medication, during the years 1854–58.

DR. BARTHEZ, in a letter addressed to Dr. Rilliet, inquires into the causes which may account for the varying results obtained by the medical and surgical treatment of croup. He seeks to determine the conditions which in each case influenced these results, so as to arrive at a safe basis upon which to decide upon the value of tracheotomy. During the first year after the Hopital St. Eugenie was opened, 13 cases were submitted to tracheotomy. The first died during the operation, and successively eleven others died after operation; it was not till the thirteenth that a cure was obtained. On the other hand, four patients who were not operated upon recovered. The fatality of the operative proceedings now induced Dr. Barthez to be more sparing of the knife; but still the ensuing year brought a great fatality—of 18 patients only 4 recovered. Two had been tracheotomized. But at this period French physicians began to distinguish between simple and infectious croup or diphtheria, and Dr. Barthez arrived at the conclusion that the disease (croup and diphtheria being employed synonymously) was the result of an intoxication giving rise to two forms of morbid action—the one local, pseudo-membranous; the other general or infectious. The author now considered the operation inadmissible in the form that was primarily malignant, on account of its rapid progress; while he held that it should be done where the disease was slow in its progress, and, although severe, only induced asphyxia slowly. The asphyxia ought to be combated by operation, whatever the previous health of the child. At this time he laid down the following rules: 1. To try internal remedies, which had been most successful; 2. To perform tracheotomy at an advanced period, when the former method had evidently failed; 3. To operate also, however unfavorable the age and prior health of the patient, if there were evidence of impending asphyxia.

This method was not followed by great success during 1856, for among 18 cases there were only 4 recoveries, of which 3 had been tracheotomized. During 1857, however, the author's views appeared justified by his results, for among 33 cases (*croups*) there were 9 cures, 7 of which were without operation. Two of these were fortunate enough to have been brought out for operation, but to have been sent back for a further trial of internal treatment. Of 23 who were operated upon but 2 recovered; however, the author expresses himself well satisfied with this result (*je le trouvai tres beau,*) for the two patients were snatched from certain death by the operation. The general results obtained during the course of 1855 were as follows: Total number operated upon, 154, with a mortality of 106, or 1 recovery in 6.9; total number not operated upon, 62, with a mortality of 26, or 1 recovery in 2.4. With regard to the character of the disease during this year, the author remarks that it presented successively all the forms of diphtheria; the recoveries accumulated at certain periods, while at others the number of deaths was terrible. From the 1st of January to the 3d of June the non-infectious form, accompanied by slow and feeble intoxication, prevailed. The false membranes descended to the small bronchi; tracheotomy, which was almost invariably performed, scarcely yielded 1 recovery in 6 or 7 cases; and the recoveries nearly all took place in February. During June the epidemic almost ceased, to recover its virulence towards the end of July. During August it was so severe that of 12 children none recovered by the operation. In September and October there were 4 recoveries among 14 patients; then, after a respite of a few days, the epidemic appears more severe than ever, and with great efforts but 1 cure is achieved among 14 patients.

The author concludes from the preceding facts that it is not the treatment which determines the results, but that we must seek for the causes of the variations observed, regarding them in the varying forms of the epidemic.

Although Dr. Barthez regards the two varieties of diphtheria as "the expression of the same affection," which often renders it "difficult to establish a distinction at the bedside," he considers it necessary to make the distinction, because the results of the treatment are so different, according as the diphtheria is local or general. In a subsequent part of the paper, though admitting the doubtfulness of the statistics, he states that of 55 patients in whom the disease put on the general type, only 7 recovered, or about 1 in 8; while of 64 patients where the disease was of the local character, 27 recovered, or 1 in 2.3.

The following are the characters which Dr. Barthez regards as distinctive of the two forms of the disease:—

1. When the false membranes extend in a continuous layer over the palate, uvula, tonsils, so as to spread into the respiratory passages, he considers generalization of the disease certain; and still more so if the nasal fossæ are attacked. On the other hand, the absence of coryza, the limitation of the false mambranes—*i. e.*, their exclusive formation in the larynx, or their slight extension to the tonsils only, are the features which appear to indicate the absence of general intoxication.

2. The gray, grayish-black color, the gangrenous appearance of the false membranes visible on direct inspection, the discharge of a blackish liquid and ichorous blood on the slightest touch of the throat, are certain signs of intoxication; while the gray-yellow, and above all the white tint, of the false membrane indicates local disease.

Diphtheritic intoxication is further characterized by marked tumefaction of the cervical ganglia of a painful character, especially if accompanied by swelling of the adjoining cellular tissue; by the production of false membranes on the skin when deprived of its epidermis, and on wounds; by gangrene of the mucous membranes of the skin or of wounds; by abundant albuminuria, which is independent of all other causes which may produce it (upon this symptom the author was "imperfectly informed" up to the end of 1858;) by the leaden, and not purple, hue; the smallness and feebleness of the pulse; the exhaustion apart from the asphyxia, or out of proportion to the apparent asphyxia. Finally, diphtheritic intoxication is characterized by consecutive paralysis, either limited to the pharynx or general.—*Brit. and For. Med.-Chir. Rev.*, April, 1860, from *Gazette Hebdom.* Dec. 2, 1859.

Use of Cold Water (irrigation) in restraining Inflammation and preventing Heat, Pain and Redness in Fractures.

THE extremely satisfactory results that I have obtained in the Marine Hospital during the past winter by the continued application of cold water to the fractured limbs, induces me to add my testimony to that of Drs. Smith, Pope, and other surgeons. It would be difficult to use terms too extravagant in describing the ease, comfort, and prevention of pain which this method of treatment secures to the patients even after double compound comminuted fractures have been sustained. During its employment the individual feels no pain; he has no fever, and he does not obviously lose flesh; he does not suffer from constitutional disturbance of any kind, nor is he conscious indeed that so serious an injury has befallen him, save when his eye is directed towards the member under treatment. At the end of the fifteenth day after entrance, the patient's physical condition is just as good as on the day of his admission; because, the limb being bathed day and night in fresh supplies of cold water, there is no pain, redness or inflammation, consequently no swelling, suppuration or wasting discharge, involving constitutional disturbance, loss of rest, emaciation, night sweats or loss of appetite. These are the usual concomitants of every other mode of treatment of fractures where the soft parts were injured.

The leg is placed in a box made of block tin, in which it fits loosely and which embraces it above the knee. This is stuffed with cloth or paper at suitable intervals to keep the leg fixed. These substances may be removed one by one and the member cleansed without disturbing its position.—At the most dependent portion of the box there is a tube passing out so far that the water falling upon the limb may escape outside of the bed. A bit of oilcloth might be used as a substitute when the box cannot be had. No straps or bandages are used. A jar containing water, with alum, (and ice if the weather is warm) is suspended above the limb by cords attached to the four posts of the bed. From the jar are depended several strips of cloth or candle wick, so directed as that the water, by capillary attraction, constantly drops upon the entire surface of the wound. This irrigation is kept up night and day for twelve to fifteen days, at which time it is advisable to discontinue it, as the action of the water becomes injurious by creating irritation of the skin. Even in the coldest weather in winter this may be kept up by covering the patient's feet with carded cotton to preserve a sufficient amount of warmth. Otherwise the temperature of the foot becomes too much lowered.

The above method has been employed in five cases of fracture of the tibia with perfectly satisfactory results in every instance. In the management of wounds, recent contusions, etc., whether connected or not with injury to the bones, the use of cold water has been, in my experience, equally applicable and successful.

Management of Chronic Ulcers.—To secure with perfect certainty the healing of *chronic ulcers* whether situated or not on parts unfavorable to their healing, I have adopted a modification of the above plan.

It was suggested by the case of a man of scrofulous diathesis under treatment in the Marine Hospital two years ago, whose whole person was marked with old cicatrices of frequent former ulcerations. He informed me that he had been treated in the Dreadnought Hospital, near London, where they are in the habit of managing such sores by light bags made of cotton or thin cloth, somewhat resembling a miniature pillow, that will retain fluids, which are frequently soaked in *hot* water and kept applied to the ulcerated surfaces The difference in the temperature of the water adapts this mode of treatment to this peculiar form of disease by the special influence of hot application in lessening *morbid sensibility*. In healing ulcers, I have frequently directed that the bags should be immersed in cold water, first stimulating the ulcerated surface to great activity by the previous application of strong nitric acid—or nitric acid in which bits of copper have been dissolved. The escharotic is used every two or three days, the bags soaked in hot or cold water being applied continuously. Rest is enjoined and tonics and hæmetics made use of.

Fifteen cases were treated in the Hospital within the past fifteen months, and in every instance the patient has been discharged cured. After trying within the past three years every species of salve, local astringents, caustics, etc., in the attempt to come to some conclusion as to the relative value of each, and having been taught in earlier life to regard chronic ulcers as the opprobria of medicine, I now feel entirely confident that a case can hardly be so bad that it cannot be healed successfully after the method recommended. Granting the special value of *hot* applications in lessening morbid sensibility in parts extremely liable to it, I have yet thought that *cold* possess their special advantages, also, in constringing the capillaries which have been relaxed by injury to the nerves governing their due contraction—as shown by the surrounding heat and redness; therefore, some judgment may be exercised in selecting the one or the other.

J. H. Bennet says (Clinical Lectures, p. 153, "General Treatment of Exudation:") "A correct treatment, therefore, will be influenced by the stage and nature of the exudation. To prevent or diminish the extent of an exudation, we must adopt measures to overcome the dilatation of the capillaries, their distension with blood, and the attractive power, (whatever it is,) which draws the liquor sanguinis into the surrounding textures. This is accomplished—1st, by local application of cold and astringents, which stimulate the capillaries to contraction; 2d, by soothing topical applications, such as warm fomentations, opiates, etc., which relieve the irritation of the nerves in the part."

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"Thus locally, *cold*, dryness and pressure check; while *heat*, *moisture*, and room for expansion, favor growth."—*Charleston Med. Journal and Review.*

ON THE ADMINISTRATION OF COD-LIVER OIL WITH BREAD.—M. Bassie has invented a method of administering cod-liver oil with bread, which he calls "huile de foie de morue panee," and which is prepared in the following manner. The bread is broken in pieces, and roasted at a moderate heat, and then thrown into a tinned vessel with some water, so as to obtain a decoction; it is then passed through a straining cloth under gentle pressure, and the strained liquid is exposed to a gentle heat until it has assumed a gelatinous consistence. White sugar and isinglass are then added, and the mixture is withdrawn from the fire and allowed to cool, when a little tartaric acid is carefully mixed with it. The bread jelly thus prepared is afterwards mixed with cod-liver oil, and flavored with canella and essence of lemons. The white oil, and of the best quality, is to be preferred for this preparation.—*L'Union Medicale.*

SCROFULA.—Dr. Gregory, of Edinburgh, asserted as his belief, that there was not a single family in Great Britain in which scrofula did not exist.

On the Use of Sarsaparilla in Syphilitic Diseases.

BY PROFESSOR SIGMUND, OF VIENNA.

(Zeitschrift der Gesellschaft der Aerzte zu Wien, Jan. 2d, 1860.)

PROFESSOR SIGMUND proposed to himself to examine the properties of sarsaparilla when used alone, and for this purpose he selected the best sarsaparilla root, and administered a portion of a freshly-made and strong decoction to the patients every day, their diet at the same time being carefully regulated. The only remarkable effect of the drug was a moderate excitement of diuresis, and occasionally a slight discharge from the bowels (which might perhaps be attributed to other causes,) but no other disturbance of any organ or function could be discovered. The patients were from eighteen to forty years of age, were kept quiet in bed, at a uniform temperature, and were free from scrofulous or other wasting disease. The sarsaparilla was administered both in the primary and secondary forms of syphilitic disease, and the following is an abstract of the results: 1. *In simple recent gonorrhœa:* seven cases exhibited a cure in no case, nor was any one of them made worse; but the symptoms diminished as they would have done under any ordinary expectant treatment. 2. *In chronic gleet,* induced by swelling of the prostrate gland and consecutive catarrh of the bladder: four cases exhibited no result whatever. 3. *In simple primary syphilitic sores:* nine cases were observed. The local treatment consisted in daily cleansing the sores, cauterization with nitrate of silver, or sulphate of copper, or corrosive sublimate, and dressings with weak solutions of the latter salt. The disappearance of the discharge, and the formation of a clean suppurating surface and gradual cicatrization, followed in six cases in precisely the same manner and at the same period as they would have done in the absence of all internal treatment. 4. *In indurated sores,* the existence of which had not dated beyond five weeks: there were 14 cases, and the local treatment consisted of daily cleansing, and dressings containing white or red precipitate, or iodine with iodide of potassium. There was a slow formation of scars, like flat, hard nodes, while the glands in the vicinity, as well as those at a greater distance, became hard and swollen, and in nine cases during the treatment spots developed themselves on the skin. 5. *In papular syphilitic eruptions, scattered over the skin:* four cases, which had been subjected to no medical treatment, were now treated continuously for thirty days, during which the original papules continued, and others more numerous were produced; here and there one of them shriveled up and formed little scales upon the cuticle, and larger ones followed after. 6. *In papular syphilitic eruptions. grouped in circles or discs:* four cases had been previously treated with iodide of potassium for five or six weeks, and they were now treated for thirty days without any result. 7. *In secondary ulcers of the skin and in periostitis,* the use of sarsaparilla appeared to produce no effect in addition to that which might be attributed to local treatment with mercury or iodine.

Thus it seemed established that sarsaparilla, used by itself. does not exercise the slightest perceptible influence on the course and termination of syphilitic diseases, and Dr. Sigmund therefore ceased entirely to employ it alone in any form of syphilis.—*Brit. and For. Medico-Chirur. Review.*

DR. RATHKE, Professor of Zoology at the University of Konigsberg, died of apoplexy on the evening previous to the day on which he was to preside at the Congress of Naturalists.

On Uræmic Affections of the Intestines.

BY PROFESSOR TRIETZ.

(Vierteljahrschrift fur die Practische Heilkunde, xvi. Jahrg., 1859, Vierter Band.)

THIS essay is devoted to the consideration of the changes occurring in the intestinal canal, associated with Bright's kidney and uræmia. In some cases the condition of the whole tube, from the cardiac to the anal orifice, is one of chronic blenorrhœa; there is a large quantity of mucus of a gray or yellowish-white color, colored with bile, and very tough. The mucous membrane is hypertrophied, and its surface somewhat irregular, owing to the varying quantities of epithelium. The membrane is remarkably anæmic, white or gray, and with black pigment here and there. The scanty fæces are enveloped in a dense layer of mucus. Occasionally the anæmia is not universal, but single segments, or even the whole tract, may occasionally exhibit considerable congestion, so that the membrane then presents a purple or reddish color, and we then have all the phenomena of chronic intestinal catarrh. The author states that the condition just described is not so frequently met with as hydrorrhœa of the intestine, which exhibits itself in the form of an accumulation of watery fluid, especially in the jejunum, of a yellowish or greenish color, in which the food is suspended. The coats of the intestine are excessively relaxed, and the mucous membrane is much softened and pulpy. The odor of the contained liquid is pungent and ammoniacal, and this ammoniacal character is brought out still more forcibly by the addition of liquor potassæ. Its causticity is shown by the condition of the mucous membrane, which presents eschars here and there, occupying the most prominent folds of the mucous membrane. In all the cases in which Professor Treitz met with these appearances, there was no other morbid condition to which they could be attributed except advanced Bright's disease of the kidney, and he therefore terms them *uræmic.*

Besides the separation of softened portions of the mucous membrane, the latter at times presents a gangrenous condition; we have before us gangrenous dysentery, which is to be distinguished from dysentery occurring under other circumstances, that the intestinal membranes are in a remarkably passive condition, showing no thickening, tumefaction, injection, or suppuration; perforation may result.

Partial sloughs of the intestine need not necessarily prove fatal; cicatrization may follow, but it would be difficult to distinguish the cicatrices arising in this way from those resulting from other causes.

Professor Treitz further remarks, that Bright's disease of the kidneys may also be accompanied by dysenteric ulcers of the colon, which he explains thus: the superficial epithelial layer is removed, and if it cannot be replaced with sufficient rapidity the deep layer of the mucous membrane is exposed, inflammation is excited by contact with the irritant liquids, excoriations produced on the prominent folds, and in the process of time exudation and suppuration result, exhibiting all the phenomena of ulcerative dysentery.

Another condition of the intestines which the author has met with in Bright's disease, is what he terms dysenteric maceration (*macerations dysenteric.*) He describes it as follows:—Occasionally rather large circular patches are seen in the colon in which the mucous membrane is eroded, so that the submucous areolar tissue or the muscular coat is exposed: the edges of the mucous membrane are well-defined, softened, and neither swollen nor œdematous. The tissues are characterized by anæmia, and the surface is covered with a gelatinous layer of mucus. At times the mucous membrane is entirely destroyed for a space of several inches, and the exposed parts look as if they had been macerated for several days. If the disease has lasted a considerable time, the denuted parts become condensed and cicatrized so as to narrow the intestine more or less. The contents are feculent, thin, pale yellow, and of a pungent odor. This condition may be associated with follicular ulceration, or with a soft, croupy exudation. The author is satisfied that the loss of substance just spoken of is due to softening and solution of the mucous membrane by the ammoniacal contents, and not to ulceration, and he has therefore applied to it the term dysenteric maceration, or macerative dysentery.

The following tabular analysis of 220 cases of genuine uncomplicated Bright's disease, will serve best to show the relative frequency of the various intestinal affections alluded to by our author—

Hydrorrhœa occurred, ...	80	times.
Blenorrhœa and catarrh, ...	62	"
Croupy and ulcerative dysentery, ...	27	"
Follicular ulceration and macerative dysentery, . . .	19	"
Sloughs, ...	12	"
Hæmorrhage in the intestine without determinable source, .	4	"
Normal feculent masses, ...	5	"
Cases in which the state of the intestines was not carefully determined, ...	11	"
Total, . . .	220	

In the concluding remarks on the pathology of the conditions previously spoken of, Professor Treitz lays great stress upon the frequency of the co-existence of general dropsy, especially with the hydrorrhœa, blenorrhœa, and macerative dysentery: in which he met with it respectively in the proportion of 75, 79, and 73 per cent. of the cases.

He concludes that the copious watery diarrhœa accompanying Bright's disease is symptomatic of the general dropsy, and should be treated accordingly; that the more watery the contents of the intestine, the greater will be the dilution of the ammoniacal salts, and the less their influence upon the mucous membrane; hence, he argues, blenorrhœa and maceration of the mucous membrane will prevail in this case, while inflammation and sloughing will follow when there is less water, and the ammoniacal contents in a more concentrated form.

In a second section of the same essay the author seeks for the explanations which physiology may afford for the various phenomena in question, and sums up his conclusions under the following heads—

1. Whenever the urinary secretion is arrested, excrementitious matters, especially urea, accumulate in the blood.

2. An accumulation of the constituents of the urine in the blood also takes place in consequence of the absorption of urine after it has been secreted.

3. Accumulation of urea in the blood is itself an important pathological condition, which probably generates or promotes exudative processes in the most various organs.

4. Urea passes from the blood into all the secretions.

5. It shows itself most frequently in the intestinal secretions.

6. It is there uniformly decomposed by the intestinal fluids into carbonate of ammonia.

7. This salt causes irritation, blenorrhœa, softening, catarrh, sloughing, and dysenteric destruction of the intestinal membranes, and many forms of dysentery originate in this manner.

8. Absorption of the ammonia contained in the intestine causes ammoniacal poisoning of the blood—ammoniæmia.

9. This results from direct absorption of decomposed ammoniacal urine.

10. The impurity of the blood through these substances only produces serious results when their removal by the normal excretory organs is impeded.—*Brit. and For. Medico-Chirur. Review.*

Statistics of Amputation.

BY PROF. SZYMANOWSKI.

(Prag. Vierteljahrschrift, 1860, Band 1. p. 61.

In the course of a paper upon amputation, Professor Szymanowski supplies the following account of the results of the amputations performed at the Dorpat Clinic between the years 1812 and 1857. They were 110 in number, with 25 deaths—viz.:

21	amputations of the	thigh,	with	8	deaths.
42	"	leg,	"	8	"
15	"	arm,	"	4	"
8	"	forearm,	"	2	"
9	"	foot,	"	3	"
15	"	hand,	"	–	"
110				25	

He contrasts this mortality with the mortality described by Dr. Macleod as occurring during the Crimean war. The proportion being:

	At Dorpat.		In the Crimea.
In amputation of the thigh,	38 per cent.	....	62.9 per cent.
" " leg,	19 "	....	40.2 "
" " arm,	26 "	....	35.2 "
" " forearm,	25 "	....	23.2 "

With respect to the mortality from amputation of the thigh alone, the following comparison is made:

At the Dorpat Clinic, ...	38	per cent.
After Waterloo, ...	55.7	"
At University College, London, .	58	"
In the Schleswig-Holstein war, .	60.2	"
In the Spanish civil war, . .	62	"
In the Crimean war, . . .	62.9	"
In the Paris hospitals, . . .	75	"
In the Polish war, . . .	100	"
In the Mexican war, . . .	100	"

—Ib.

On the Treatment of Hæmorrhoids.

BY MM. NELATON AND HEYFELDER.

(Gazette des Hopitaux, 1860, No. 23.

In a recent clinical lecture. M. Nelaton made the following remarks:—"I was some time since a great partizan of the actual cautery in hæmorrhoids, at least since it could be employed under conditions formerly impossible. In fact, nothing can be more painful than its application. I have seen cauterization employed many times by Dupuytren, who first excised the tumor and then cauterized; but so terrible were the sufferings of the patients, that I could scarcely have made up my mind to have recourse to it, had not the means of preventing pain by chloroform been discovered. I have since then frequently had recourse to cauterization with the best results; and if I do not employ it now it is because we have at our disposition another operative procedure which is just as good, and which is not painful either during or after its application. I mean *ecrasement lineaire.* It is usually unattended with hæmorrhage, and when, as is sometimes the case, there is a certain amount of bleeding, this may at once be arrested by means of a powerful hæmostatic, the perchloride of iron. The union of these two means, then, constitutes an excellent method for the ablation of hæmorrhoids.

"One word about ligatures. All surgeons at the end of last century and the beginning of the present were very fearful of applying them, owing to an instance of fatal hæmorrhage which occurred after the application of the ligature by J. L. Petit. I believe I am right in affirming, guided by the cases related by Amussat, and by those which have occurred im my own practice, that these surgeons entertained the most erroneous notions concerning the results of the ligature employed fot hæmorrhoids. It is an excellent operation, by means of which patients may be cured in eight or ten days without any accident; and indeed I may place it on the same line with *ecrasement lineaire.* The latter has, however, the indubitable advantage of causing the fall of the tumor within a few minutes, although perhaps it offers somewhat less security against hæmorrhage.

"There is one thing to be well borne in mind—viz., that all these operations practiced in the vicinity of the anus, however simple they may be in appearance, may terminate in a fatal manner. This is a powerful motive for insisting as long as possible on palliative treatment, only performing an operation as a last resort. Quite recently, one of our leading surgeons applied a small portion of Vienna caustic to a hæmorrhoidal tumor, and the patient was dead next day; while in another case, an incision made into a fistula scarcely a centimetre in length, was followed in a few days by fatal purulent infection. I was myself consulted some years since by a man who, having acquired great wealth, complained bitterly of not being able to enjoy it in consequence of a hæmorrhoidal tumor. I advised him to bear with it, but some time after abundant hæmorrhage having come on, he entreated its removal. He manifested all the signs of complete anæmia. He was put under the influence of chloroform, and the actual cautery was employed. He did not suffer during the operation, but scarcely had he recovered consciousness when he complained exceedingly. I appeased the pain and all seemed doing well, when on the sixteenth day violent shivering ushered in purulent infection, and he died. The conclusion to be drawn from all this is, that you should never operate except when you cannot possibly avoid doing so, since when you least suspect it you may meet with sinister events similar to those just adverted to.

"One more word with respect to *ecrasement lineaire*. This operation has during some time been frequently resorted to; and it is for this description of tumor it is perhaps best adapted. But I ought to inform you that in most cases the operation is badly executed. For a short time after its performance the patients are delighted, and the surgeon believes that he has attained a splendid result; but in the course of a few months the cicatricial tissue contracts, and the patients suffer from an anal stricture. During about a twelvemonth I have had a great number of patients who have come to me in order to undergo an operation for the relief of this unfortunate consequence of removal of hæmorrhoidal tumors—the stricture sometimes scarcely admitting the passage of a quill. It has arisen because not only the mucous projection which alone constitutes the disease has been removed, but also a more or less considerable portion of the skin of the orifice of the anus."

[Professor Heyfelder, of St. Petersburg, commenting upon the above article (Deutsche Klinik, No 20,) adds some corroborative instances of fatal results speedily following apparently trifling operations in the anal region. He is inclined to regard such cases as examples of irritation of the nervous system, somewhat analogous in nature to the *delirium nervosum* or *traumaticum* met with after injuries; and this the more so, as such excitement is often manifested in persons suffering from hæmorrhoids, owing doubtless to some extent to their want of rest.]—*Brit. and For. Medico-Chir. Review.*

On the Treatment of Staphyloma by Ligature according to Borelli's Procedure.

BY M. ANCELLON.

(Bulletin de Therapeutique, tom. lvii. pp. 441-449.)

During the twenty years in which the author has been engaged in opthalmological practice he has observed the different varieties of staphyloma to be continually increasing in number; and he cannot but feel astonished at the assertion made by Mackenzie and other writers on diseases of the eye, that this deformity was of more frequent occurrence prior to the employment of vaccination. He is of opinion that the increasing prevalence of scrofula in our own times, and its frequent implication of the eyes, leads to the production of staphyloma more frequently than did variola prior to the introduction of vaccination.

In this paper he speaks highly of the treatment of staphyloma by ligature, as recommended by Borelli at the Brussels Opthalmological Congress, in 1857. There is less deformity produced than by any other mode of treatment, an artificial eye is more easily adapted, and in some cases a chance is left for the formation of an artificial pupil. Two long, thin insect pins are implanted into the base of the staphyloma, traversing it through and through in the form of an X. A waxed thread is then passed between the plane represented by the pins and the bulb of the eye, and tightened. Next day a fleshy tubercle is all that remains of the deformity, and by the fourth or fifth day, eschar, pins, and ligature have all come away in the dressing, leaving a superficial wound, projecting little beyond the remaining cornea. In a week this has cicatrized. It has been supposed that this procedure must be a very painful one; but in M. Borelli's fifteen cases, and in those occurring in the practice of the author and of M. Guepin, of Nantes, it was not found to be so.—*Ib.*

Foreign Correspondence.

LETTER FROM DAVID P. SMITH, EDINBURGH.

October 26.

Nov 6.—Prof. Bennett commenced his Winter course of clinical medicine to-day by delivering a terse and epigrammatic lecture upon diagnosis. Having attended closely to his instructions in the wards for the last month, and having greatly profited thereby, I can testify to the excellence of his clinical instruction. Every facility is afforded to the student to enable him to learn thoroughly the normal and abnormal sounds of the heart and lungs by auscultation and percussion, for which the large wards of the Royal Infirmary furnish ample opportunity. The previous history of every case is carefully gone into, and every endeavor made to place prominently before the class every symptom and characteristic of every case at each visit. It may be w or me to state, that in my reports from time to time of what I see in medicine and surgery, while abroad, I shall not give prominence to strange and wonderful cases, but shall endeavor to give as plain an account as possible of the ordinary everyday practice—*conduct*—in medicine and surgery, of those men whose names are familiar to us all as household words. I shall use as few words as possible, and indulge in no lengthy descriptions.

Nov. 7.—This evening, by invitation of Dr Brodie, I attended a meeting of the Medico-Chirurgical Society. Mr. Edwards showed an amputated arm, the elbow-joint of which had been excised some time before. Although carious disease had returned after the exsection, and necessitated removal of the arm, there was plainly to be seen great progress towards the formation of new condyles, etc., etc. The joints formed after exsection of the elbow here are wonderfully perfect, as evinced by the almost unimpaired freedom of motion. The great rule to be followed, so as to obtain this result, is to remove quite a large amount of bone. Dr. Handyside read the report of a case where he had amputated the thigh of a lad, about 16 years old, just below the trochanters, for spreading traumatic gangrene resulting from compound fracture of leg and laceration of tissues in the ham. Acupressure needles were used instead of ligatures upon the arteries with perfect success. The operation was performed when the lad was in a very desperate condition. The refusal of the parents to allow the operation caused it to be postponed until gangrene had nearly reached the body, and the glands in the groin were greatly swollen. Three ounces of blood only were lost in the operation, four acupressure needles were used, and, according to the operator, were applied with much greater ease and celerity than is usual with ligatures. The one on the minor artery was removed at the end of fifty-one hours, the others earlier. There was no hæmorrhage, ahd no suppuration in the track of the needles. Convalescence was retarded only by the occurrence of suppuration in the glands in the groin, which discharged pus for two or three days. In reply to Prof. Miller, Dr. Handyside said that the arteries, at the time of the operation, *spouted* with the usual vivacity. The case was extremely well reported by Dr. Handyside—who, it will be remembered, amputated at the hip some time since successfully—and gave rise to much discussion as to the amount of credit to be given to the needles. Professor Miller, while acknowledging the rare success of the operation, doubted whether the needles were to be praised for the result. He did not agree with those who apprehended trouble from the pressure of the ligatures in a corner of the wound; but even thought that they served a useful purpose by draining off the pus and causing the wound to heal from the bottom. He thought that the great preventive of union by first intention was not the ligatures but blood between the cut surfaces. He thought surgeons had advanced backwards since Liston's time, in giving up his plan of placing wet lint between the flaps and waiting an hour or two, or until all oozing had ceased, and the cut surface was glazed over with liquor sanguinis, before closing the wound. Several spoke in favor of the needles, and also some against them, arguing that the pressure antagonizing the pressure on the artery must prove hurtful. A good deal of personal feeling got mixed up with the scientific question, showing at least that the needles prick and cause some mental if not corporeal irritation. It seemed to be agreed that they were competent to control large arteries, but that the assumption that they produced less irritation than ligatures was *not proven*, and required careful and *unprejudiced* trial in a variety of cases.

Nov. 8.—To-day Mr. Syme showed a case of morbus coxarius occurring in a man 23 years of age. It had been going on for about one year, and the thigh was rigidly flexed upon the abdomen. Mr. S. remarked that the exact pathological state of the parts concerned in this disease had not yet been determined, and that he thought the opinion of Sir B. Brodie, that the disease began in ulceration of the cartilages, was incorrect. He himself thought the disease began in the bones. He discarded setons and issues, and trusted to perfect rest to obtain a cure. In order to obtain that perfect rest the long thigh splint was used. The man being placed under the influence of chloroform, the limb was straightened and the splint applied, and fastened to the limb by a broad cloth wrapped around both.

A case of *fistula in ano* operated upon to-day deserves notice on account of the peculiar attitude in which Mr. Syme places one for the operation, which is on the back with the legs raised high in air. A case of hydrocele of the neck was shown, and injected with iodine, which was left in.

The cases in the medical wards under care of Prof. Bennett are many and various, but for many reasons difficult to give a report of in short communications. A diuretic much used by Prof. B. is R. Ammoniæ acetat. 3 drms.; spirit. æther. nitrici f 3 drms.; aquæ ad uncias sex. M. One tablespoonful every four hours.

A case of itch gave opportunity for remarking that all ointments, even sulphur ointment, used for its cure, owe their efficacy to the lard entirely. In fact, the case which has been treated for seven days with inunction of mere simple cerate is now well. Heart diseases and phthisis are very common here; so that a very excellent opportunity is offered to any student to become familiar with every variety of these diseases. For example, one evening I visit the Infirmary for the purpose of studying heart disease, and am enabled to auscultate twenty or thirty cases, at my leisure, with the house physician, hearing the remarks of the Professor on the same cases the day after. Again, the multitude of cases of phthisis furnish unlimited opportunities for the study of all phenomena connected with morbid states of the lungs. I spend most of my evenings in the Infirmary examining the infinite variety of diseases there present. Every noon from twelve to two the wards are visited by the Professor, and case after case rigidly examined, each member of the advanced class acting in turn as examiner. Typhus fever has been quite prevalent here of late, characterized by great prostration, delirium, and a mulberry rash, or measly eruption. It is treated by careful and systematic nourishment, carbonate of ammonia, wine, and brandy.—*American Medical Times.*

On Chorea, by Trousseau.—He classes with chorea, whose characteristic feature is uncertain movements of the muscle groups, alcoholic diathesis, delirium tremens, the paralysis agitans, tic non dolereux, tic dolereux, reflex cramps, (ch. salteloria,) clerk's cramps, chest cramps, hysterical cramps, and finally chored—St. Sancti viti. This last usually occurs between the seventh and eighteenth years of life. Up to the twelfth girls seem to suffer more than boys, whilst the latter are more affected between the twelfth and eighteenth. The most remarkable phenomena is the continued motion and disquietude of the patients. They have power of will enough to set the muscles in action, but are no longer in condition for an appropriate co-ordination of muscles; another phenomenon is the greater or less paralytic seizure of the attacked muscles. The convulsive motions cease entirely during sleep, and absolute rest is observed. The chorea, St. Viti, is in nearly one-third of the cases combined with rheumatism or the consequence of it, also is frequently consequent to scarlatina. A further exciting cause of this disease are violent emotions, fright, intense anger, and finally great anemia.

The author recommends as the best remedy in St. Vitus' Dance, strychnine, in the forms of syrups, for 100 grammes (1544 gr.) of syrups 5 centigrammes (1 gr.) of sulphate of strychnine. For children from four to seven years of age he begins with one teaspoonful twice daily, (making for each dose 1-25 of a grain,) and increases the quantity to six teaspoonsful daily. For grown persons he begins with larger doses, as much as one-third of a grain, repeating it three times. This remedy is continued until the physiological effects of the strychnine can be observed, when the doses are gradually diminished to the quantity of the commencement. The author thinks but little of sulphur baths, but recommends gymnastics. In very obstinate cases he uses opium in large and increasing doses, beginning with half a gr. —*L'Union Med.*, from *Nashville Med. Record.*

Color of the Cerebral Substance in Relation to the External Pigment.—Meckel and Lecat long since noticed that the color of the cerebral substance was deeper in the negro than in the white man. The fact has been since verified, and if it has been denied by some, this has probably arisen from the means of comparison not having been at hand. M. Broca recently placed before the Anthropological Society the brain of a negro, and although this had lain in spirits more than two months, the coloring matter was distinctly cognizable, the white substance having a smoky tint. It was, however, the gray substance which was especially remarkable for its brown color. The pia mater, especially at the base, also contained patches of slate-colored pigment. M. Gubler, having had occasion to observe the above appearances in the brain of a negro, was induced also to examine whether analogous modifications might not be observed in dark-colored persons among the white race; and frequent comparison has convinced him that there is a true connection between the more or less deep color of the nervous centers, and that of the cutaneous pigment. Ehrmann has also noticed pigmentary cells in the cerebral membranes of the Malays: and Virchow has observed that such coloration of the pia mater may be often observed in whites, though he does not seem to have connected it with the condition of the external pigment, as M. Gubler has done.—*Moniteur des Sciences Med.*, No. 14.—*Med. Times and Gazette.*

Ricord's successor in the Hopital du Midi is to be M Cusco, late of the Salpetriere.

Practical Observations upon the Nature and Treatment of Prostatorrhœa.

BY PROFESSOR GROSS.

The disease which I am about to describe, has not, so far as is known to me, received any attention either from specialists or from the authors of general treatises on surgery. The term by which it is here designated appears, it is true, in M. Nelaton's "Elemens de Pathologie Chirurgicale," but altogether in an incidental manner, and evidently without any definite idea on the part of that distinguished writer as to the true nature of the affection in question.

Prostatorrhœa is, as the name implies, a discharge from the prostate gland, generally of a thin, mucous character, dependent upon irritation, if not actual inflammation, of the component tissues of that organ. The reason why the disease has not received any specific name or place in surgical nomenclature, is, simply because it has always been confounded with other lesions, as gleet, or chronic urethritis, seminal losses, and cystorrhœa, or chronic inflammation of the mucous membrane of the bladder, from which, in fact, it is often difficult to distinguish it. As for myself, I have long been familiar with the affection, and latterly have described it in my lectures at the College.

I have not met with prostatorrhœa in children or very young subjects, probably because all kinds of diseases of the prostate are so very rare at that period of life. That it may occur, however, even at a very tender age, is altogether likely, especially in children laboring under stone in bladder, prolapse of the bowel, or worms in the rectum, causing the organ to suffer from reflected irritation. After the twentieth year the disease is sufficiently common, and instances are occasionally met with even in very old persons. As long as the prostate gland remains small and inactive, or is not brought fully under the influence of the sexual organs, with which it is so intimately associated, it is comparatively infrequent.

I am not able to say, from my inexperience, what classes of persons are most liable to suffer from this affection: but it has seemed to me that it is most frequent in those of a sanguineo-nervous temperament, with strong sexual propensities, leading to the frequent indulgence of the venereal appetite, if not to positive venereal excesses, either in the natural manner or by masturbation. An irritation would thus seem to be established in the prostate gland, attended with more or less discharge of its peculiar secretion, either in a normal or abnormal state. Single and married men are, apparently, prone to it. Once established, it is probable that certain occupations may serve to keep it up; and it is also likely that there are certain employments which may predispose to it, although it would require a much longer experience than is possessed by any one individual to point them out in a definite and satisfactory manner. Intemperance in eating and drinking, frequent horseback exercise, sexual abuse, disease of the bladder, anus, and rectum, may all be regarded as contributing to such a result.

The exciting *causes* of prostatorrhœa are not always very evident. In most cases that have fallen under my observation, the affection was traceable, either directly or indirectly, to venereal excesses, chronic inflammation of the neck of the bladder, stricture of the urethra, or disease of some kind or other of this canal. In some cases it has its origin in disorder of the lower bowel, as hæmorrhoids, prolapse, fissure, fistule, ascarides, or the lodgment of some foreign body. It is easy to conceive how reflected irritation might produce this disease. The connection between the prostate gland and ano-rectal region is very close and intimate, and hence, whatever affects the one will almost be sure, in time, to implicate the other, either in consequence of the proximity of structure, or as an effect of the laws of sympathy. However this may be, no judicious surgeon ever omits to examine those parts most thoroughly, in the event of any serious disease of any of them, before he attempts a course of treatment. Temporary prostatorrhœa is occasionally excited by the exhibition of internal remedies, as drastic cathartics, cantharides, and spirits of turpentine; or, in short, whatever has a tendency to invite preternatural afflux of blood to the prostate gland and neck of the bladder, or to the posterior portion of the urethra. Another cause of the disease, and, according to my experience, a very common one, especially in young men, is masturbation or self-pollution. Many of the most obstinate and perplexing cases of it that have come under my notice were the direct result of this detestable practice.

The *symptoms* of prostatorrhœa are sufficiently characteristic. The most prominent, as already stated, is a discharge of mucus, generally perfectly clear and transparent, more or less ropy, and of varying quantity, from a few drops to a drachm and upwards, in the twenty-four hours. It is seldom that it is puriform, and still more rare that it is purulent. When considerable, the flow keeps up almost a constant moisture at the orifice of the urethra, and may even make a decided impression upon the patient's linen, leaving it wet and stained, somewhat in the same manner as in gleet or gonorrhœa, though in a much less marked degree. The most copious evacuations of this kind generally occur while the patient is at the water closet, engaged in straining, especially if the bowels are constipated, or the fecal matter is uncommonly hard, or greatly distends the rectum, so as to exert an unusual amount of pressure upon the prostate gland.

The discharge, whether small or large, is often attended with a peculiar tickling sensation, referred by the patient to the prostate gland, from which it frequently extends along the whole length of the urethra, and even to the head of the penis. In some cases, indeed in many, the feeling is of a lascivious, voluptuous, or pleasurable nature, not unlike that which accompanies the earlier stages of sexual intercourse. Not a few patients experience what they call a "dropping sensation," as if the fluid fell from the prostate gland into the urethra. Other anomalous symptoms often present themselves, such as a feeling of weight and fatigue in the region of the prostate, the anus and rectum, or along the perineum, with perhaps more or less uneasiness in voiding urine, and a frequent desire to empty the bladder; some persons are troubled with morbid erections, and their sleep is interrupted with lascivious dreams.

It is astonishing how much the patient's mind suffers in this affection. The discharge, even if ever so insignificant, occasions him the greatest possible disquietude; for at one time he imagines it is a source of much bodily debility, or that it is productive of weakness and soreness in the dorso-lumbar region, especially if these symptoms happen to co-exist; at another, that he is about to become impotent, under the delusive idea that the flow is one of a seminal character; an idea not unfrequently haunts him day and night, and from which hardly anything can, perhaps, even temporarily, divert his attention. His mind, in short, is poisoned, and the consequence is that he is incessantly engaged in trying to obtain relief, running from one practitioner to another, distrusting all, and affording none an opportunity of doing him any good. In the worst forms of the affection, his business habits are destroyed, he becomes morose and dyspeptic, and he literally spends his time in watching for the discharge which is the source and cause of his terrible suffering.

The affections with which prostatorrhœa may be confounded are the various forms of urethritis, especially gleet or chronic gonorrhœa, discharges of semen, and chronic inflammation of the bladder.

From urethritis, whether common or specific, it is generally easily distinguished by the history of the case, the nature of the discharge, and the attendant local phenomena. In most cases, the affection comes on gradually, not suddenly, as in gonorrhœa or simple inflammation, and without impure connection; the discharge is white or grayish, translucent and ropy, not purulent, opaque, and yellowish; and there is ordinarily no burning or scalding in micturition. Moreover, there is seldom any evidence of inflammation in the urethra or penis. In gleet or chronic urethritis the signs of distinction are sometimes more difficult; but even here a satisfactory conclusion may generally be reached by a careful consideration of the history of the case, and a proper examination of the discharge, which is nearly always more or less puriform, as well as more abundant than in prostatorrhœa. When the discharge of the urethra is kept up by the presence of a stricture, the diagnosis can be determined only by a thorough exploration with the bougie.

Very many patients confound this discharge with a flow of semen; an idea in which they are often encouraged by their attendants, in consequence of their ignorance of the nature of the affection. Much has been said and written respecting diurnal spermatic emissions; but, according to my experience, these discharges are chiefly of a prostatic character, the fluid being forced out of its appropriate receptacles into the urethra, along which it is presently discharged. This delusion will be more likely to take hold of the mind if the escape of the fluid be accompanied by a sort of pleasurable sensation, somewhat similar to that which follows a feeble emission. Persons affected with prostatorrhœa will often tell us that they have quite a number of such evacuations—perhaps as many as six or eight—during the twenty-four hours, especially if they are troubled with disease of the ano-rectal region, leading to frequent visits to the water-closet, or addicted to the pleasures of the table, or to inordinate sexual intercourse, eventuating in general and local debility. Should the history of the case fail to afford the requisite light, it may be promptly supplied by a microscopic examination of the suspected fluid, semen always revealing distinct spermatozoa, whereas the prostatic and urethral secretions never afford any such indications. This will be the case whether the discharge be taken fresh from the orifice of the urethra, or from the stiffened spots left upon the patient's linen.

The characteristic symptom of cystorrhœa, or chronic inflammation of the bladder, is an inordinate secretion of mucus, associated, in nearly all cases, with an altered condition of urine, frequent and difficult micturition, pain in the region of the affected organ, as well as in the surrounding parts, and more or less constitutional disturbance. In prostatorrhœa there may be also more or less uneasiness low down in the pelvis, with trouble in voiding urine, especially where the prostate is much enlarged, so as to cause constant vesical irritation; but the two disorders are so widely different as to render it impossible to confound them.

The *pathology* of this affection consists in some disorder of the prostate gland, especially of its follicular apparatus, leading to an inordinate secretion of its peculiar fluid, and to a discharge of this fluid along the urethra, at longer or shorter intervals, and in greater or less quantity. That this disorder is, at times, of a real inflammatory character, would seem extremely probable from the nature of the concomitant phenomena, and also from the fact that this organ is frequently, if indeed not generally, found to be more or less enlarged and indurated. Nevertheless there are cases, and these are by no means uncommon, in which it is, to all appearance, either entirely healthy, or so nearly so as to render it impracticable, by the most careful exploration, to discover any departure from the normal standard. The discharge under such circumstances seems to be the result solely of a heightened functional activity, probably connected with, if not directly dependent upon, disorder of the seminal vesicles, the urethra, neck of the bladder, or recto-anal structures; in other words, upon reflected irritation, or, as our professional forefathers would have denominated it, sympathetic disturbance.

The *prognosis* of prostotorrhœa is generally favorable, for it does not, in itself, present anything grave, being, as just stated, not a disease, but merely a symptom of a disease, usually slight, and therefore easily removable. Its obstinacy, however, is often very great, and hence the surgeon should always be guarded in the expression of his opinion respecting a rapid cure. When the mind deeply sympathizes with the local affection, as is so frequently the case, especially in young men of a nervous, irritable temperament, there is no disease which, according to my experience, is more difficult of management, or more likely to result in vexation or disappointment.

In the *treatment* of this affection, one of the first and most important objects is to enquire into the nature of the exciting cause, and, if possible, to remove it. To set about it in any other way would be the climax of absurdity; for here, as everywhere else, our therapeutic measures must be based upon a rational pathology, or a full appreciation of the nature and seat of the disease. The points which should more especially claim attention, are—first, the condition of the prostate and its associate organs; and, secondly, the habits and state of health of the patient.

The first of these indications is best fulfilled by a thorough exploration of the genito-urinary apparatus and of the anus and rectum. For this purpose a catheter is employed, with a view of ascertaining the condition of the urethra, the prostate, and the bladder, aided by the finger in the bowel, previously emptied by an enema. In this manner the surgeon becomes at once apprised of the existence or non-existence of stricture of the urethra, and of the presence or absence of morbid sensibility of its mucous membrane, the size and consistence of the prostate, and the state of the urinary reservoir, particularly as to whether there is inflammation, stone, hypertrophy, or other lesion. The finger in the rectum will be of great service, not only in detecting disease in the prostate and bladder, but also in this tube itself and in the anus. Indeed, without its aid no exploration of these organs could be at all satisfactory. If disease of the seminal vesicles exist, it will usually be evinced by tenderness on pressure through the wall of the bowel, provided the finger is sufficiently long, or the prostate is not too voluminous.

The habits of the patient should be particularly inquired into. In many of this class they are decidedly lascivious, or marked by excessive sexual indulgence, either naturally or in the form of masturbatión, the prostate gland, seminal vesicles, and adjoining structures being thus kept in a state of continual excitement highly favorable to the production of prostatorrhœa. The nature of the patient's diet, his temperament, the state of his health, and his mode of life as it regards sleep and exercise, both of mind and body, also deserve especial consideration.

Having ascertained the above facts, or, in other words, having made himself perfectly familiar with the local and general condition of the patient, the surgeon will be able, in most cases, to institute something like a rational mode of treatment. This should be directed, as a general rule, partly to the system at large, partly to the suffering structures. In many cases the patient is weak, or deficient in muscular and digestive power, indicating a necessity for tonics, as iron and quinine, a nutritious diet, with a glass of generous wine, and gentle exercise in the open air, either on foot or in an easy carriage; riding on horseback being scrupulously avoided as likely to keep up undue excitement in the parts. One of the best preparations of iron is the tincture of chloride, in union with tincture of nux vomica, in the proportion of twenty drops of the former to ten of the latter, four times a day.

If the patient be plethoric, he may use with great advantage small doses of tartar emetic in the form of the antimonial and saline mixture, care being taken not to nauseate. In either case, it is of paramount importance to correct the secretions and to maintain a soluble condition of the bowels. Drastic purgatives are of course avoided, as they would only tend to perpetuate the mischief. Unless the patient is actually debilitated, he should rigorously abstain from condiments and high-seasoned dishes.

Among the most important remedies are — first, moderate sexual indulgence, as a means of allaying undue excitement of the prostate and its associate organs; secondly, cooling and anodyne injections, or weak solutions of nitrate of silver and laudanum, or, what I generally prefer, Goulard's extract with wine of opium, in the proportion of from one to two drachms of each to ten ounces of water, thrown up forcibly with a large syringe three times a day, and retained three or four minutes in the passage. In obstinate cases, cauterization of the prostatic portion of the urethra, or even of the entire length of this tube, may be necessary, the operation being repeated once a week. The cold hip-bath should be used twice in the twenty-four hours; the lower bowel should be kept cool and empty; and, if the disease does not gradually yield, leeches should be applied to the perineum and around the anus.

Such, in a few words, is a brief outline of the treatment which I have found most efficacious in this affection. Whatever plan may be employed, perseverance and an occasional change of prescription are indispensable to success. When there is deep mental involvement, hardly anything will effect a cure; or, more correctly speaking, it is almost impossible to induce the patient to believe that he is well, or that nothing serious is the matter with him. Under such circumstances, our chief dependence must be upon traveling and an entire change of scene and occupation. If the patient be single, matrimony should be enjoined.—*Transactions of the Medical Society of the State of Pennsylvania at the Twelfth Annual Session*, 1860.

TREATMENT OF THE FRECKLES OF PREGNANCY.—When freckles, which are of such common occurrence in pregnancy, persist after delivery, M. Hardy recommends the following lotion: Dist. water 125 parts, corrosive sublimate 1·2 part, sp. wine 9 parts, to dissolve it, sulph. zinc, acetate of lead, aa 2 parts. When this application fails, Bareges or Luchon water, applied as local douches to the parts affected, induce slight inflammation, which facilitates the absorption of the pigmentary deposits.—*Bull. de Therap.*

QUININE IN ASTHENIC PNEUMONIA.—D. J. Boyd, of Abbeville, North Carolina, relates in the *Charleston Med. Journal and Review* a successful case of treatment of asthenic pneumonia by quinine. In this case, which was of several days' standing, the patient had been previously purged and blistered. The state of the patient being one of extreme danger, Mr. Boyd determined to try the effect of large doses of quinine. Five grains of quinine were therefore administered every three hours, and in less than twenty-four hours a marked change for the better was evident. The same treatment was continued for three days, during which a rapid improvement took place, and the patient was nearly well on the fifth day of the trial of the new plan.—*Nor. Amer. Med.-Chir. Review.*

Case of Fatty Degeneration of the Bowels.

BY F. S. EVANS, M.D., ONECHO, TENN.

On the 25th of July last I attended a post-mortem examination, with Drs. Mallory and J. W. Williams, on the body of a negress aged about 45 years. She was mother of seven children, six of whom are living and in good health, the youngest five years old. She had usually been kept at work on the farm, when about two years ago she was disabled from laboring longer, and remained in a lingering condition until death released her from all suffering. During the latter eighteen months of her life, her abdomen was very much enlarged, resembling the latter state of pregnancy, except its being inelastic and very much indurated, and what was more remarkable, the umbilicus to all external appearances was formed into a tumor of the size of the fist, and was also inelastic and immovable, and had been discharging pus for many months.

We made an incision transversely on each side of the umbilical tumor, through the parietes of the abdomen, and then longitudinally with the linea alba from the umbilicus to the os pubis below, and above to the sternum, which left a square shaped mass including the umbilical tumor, which was taken out in the form of a plug, and we found that the pus had been discharged along the umbilical ligament and through the umbilical opening. In making our incisions we found the parietes of the abdomen enormously thick, say from two and a half to four inches, and degenerated into one confused mass of fat, which seemed in places to be semi-cartilaginous, especially near the umbilicus. There was not a vestige of the liver to be found; in its stead was a fatty tumor that seemed blended with the walls of the abdomen. There were also numerous tumors of various sizes attached to the bowels; in other respects the bowels were healthy, except a small portion of the lower bowel, in which there was evidences of recent inflammation. I will remark that the sister of this woman is to all external appearances in the same situation.

I have given you an account of what I think a remarkable case. I would like to hear your opinion of the case, or that of any of the numerous readers of your Journal.—*Nashville Jour. of Med. and Surgery.*

Iodide of Potassium, Injection in Leucorrhœa.—In the *New Orleans Medical and Surgical Journal*, a solution of iodide of potassium (one drachm and a half to eight ounces,) is said to have proved serviceable in the treatment of leucorrhœa, being introduced into the vagina in the form of injection three or four times a day. Injections of Castile soap and water are recommended also, as adjuncts to this treatment, and are themselves sometimes curative.—*N. Amer. Med.-Chir. Review.*

Neuralgia.—Twenty grains of Keith's lupulin, and ten grains of prussiate of iron, divided into two powders, and one taken night and morning, have cured a large number of cases of this disease.

Death by Hanging and Strangulation.

BY CH. F. J. LEHLBACH, M.D., OF PHILADELPHIA.

THE reader who has carefully perused the tabulated, differential, post-mortem appearances more or less characteristic of strangulation and hanging, with which we concluded the first paper on the subject, will have been struck, no doubt, with two facts apparent therefrom:

First, That in spite of the great similarity of both modes of death, as far as the *cause* is concerned, there is a remarkable difference in the necroscopic appearances; and

Second, That this difference consists to a great extent in the positiveness and well-marked appearance of the signs of strangulation, while those of hanging are more of a negative, or, to use a better expression, a milder character.

Aside from the fact that the tabulated appearances given, based as they are upon the best observations, overthrow entirely the current ideas of characteristics *common* to strangulation and hanging; and aside from the fact that the well-established physiological observations of Dalton show conclusively that the appearances mentioned as *common* to all forms of suffocation by Dunglison and other authors, do in reality not exist in the two most nearly allied forms of suffocation—hanging and strangulation,—and that they were *premised*, by writers, upon hypothetical views regarding the effect of the stoppage of respiration upon the circulation in the lungs, which views are erroneous; aside from all this, the table given in our former paper presents a point of remarkable interest.

It is curious that, though strangulation and hanging are both produced in exactly the same manner, only with the exception that in one case the constricting force acts from without, and in the other case is constituted by the weight of the body itself, there should be so remarkable and radical differences in the post-mortem appearances.

Strangulation, with appearances so positive, so characteristic, so marked, so violent, we might say, with the tumified, violet countenance, the protruding tongue, the blood in the nares, the enchymoses in the face, the bloody froth in the larynx, trachea, and bronchi, the *ruptured air vesicles*, etc., is, in nine hundred aud ninety-nine cases out of a thousand, the result of criminal violence of murderous intent. Hanging, on the contrary, with less marked appearances, with the pale, placid face, and scarcely a characteristic sign except the peculiar trace of the cord around the neck, is in the same proportion the result of suicide or legal execution. Truly, murder will out! It leaves its physiognomy of violence upon the dead.

In this connection it may not be out of place to cite from Tardieu's essay one or two typical cases. One is reported (Etude medico legale sur la strangulation, etc.,) on page 79, under Observ. XIX.

"*Murder by strangulation, following a complete rape; hanging of the cadaver to simulate suicide.*

"The victim was a girl, fifteen years of age, whose body was found suspended on the 30th of August, 1858. The autopsy demonstrates in the clearest manner that the hanging had been accomplished after death, and for the purpose of hiding the double crime of rape consummated, and assassination committed by strangulation. I shall omit all that relates to the first crime, and refer only to the characteristic signs of strangulation, insisting upon the essential characteristics by the aid of which the expert has been able to distinguish homicide from suicide, and to recognize that the hanging of the cadaver was only a means attempted to hide the crime and escape justice.

"The head produced numerous traces of violence. Under the hairy scalp, around the left eye, on the forehead and cheek, are found large enchymoses, arising from blows by the fist or by the foot. Blood flowing from the left ear. The brain is slightly punctated, and the veins are gorged with black blood, thick and tarry. The tongue, bitten and bloody, is inserted between the teeth.

"In front of the neck, the skin is marked by two bands, the lower one formed by impressions of the fingers, very near together, almost uninterrupted, and which have bruised, flattened, and as it were tanned the skin. The skin at these points is dry, almost hard, aud viewed by transmitted light, presents the appearance of a thin lamina of horn. This lesion is above the substernal depression, and extends nearly over the lateral portions of the neck with such regularity in its curve and such exactness of the impressions, that we can recognize by their greater number on the left, those which have been made by the right hand. Above this first furrow, under the chin, is seen a sort of a depression, a little less extensive, more regular, a bruise of the same nature as the former ones, but continuous, resulting from the pressure of the index finger and thumb of the left hand, forcibly extended around and grasping the anterior portion of the neck. Finally, a little below, and very near the jaw, there is a superficial trace, of a livid redness without alteration of the skin, and obviously produced by the cord which had been placed around the neck, and by which the body had been suspended after death. Behind, there is neither a trace of compression or of a ligature,—nothing which would indicate the circular action of a cord. Larynx and bronchi contain froth. The lungs, which are neither more dense nor more voluminous than in the normal state, present nothing which resembles congestion or infiltration. The contents of the stomach have regurgitated into the œsophagus and up to the air passages."

The report of the preceding case is not by Tardieu, but by Dr. Loraine. The condition of the lungs, as regards rupture of air vesicles, is not noted; indeed we can well excuse this omission and others in a case where the external marks so clearly and unequivocally point out the cause of death.

In another case, however, (Obs. xi. p. 70,) where strangulation was committed upon a woman by the hands, Tardieu, among others, gives the following signs:—In the subcutaneous cellular tissue and the muscles of the neck, blood was found infiltrated and coagulated. The internal face of the larynx and trachea were covered over by a large quantity of very fine bloody froth. The lungs were voluminous, strongly congested, and presenting on their surface a large number of emphysematous spots, formed by the union of ruprured pulmonary vesicles, having the aspect of white dots, like pellicles, irregularly disseminated under the pleura.

While strangulation, most always homicidal, leaves its physiognomy of violent death more or less characteristically upon the victim, we find in suicidal as weil as in judicial hanging an opposite state of things, characteristic of non-criminal death by its very negativeness, as compared with the former.

Whence these differences?

Tardieu does not enter into any physiological explanation whatever; nor does Dalton apply his beautiful observation to the medico-legal questions now under consideration. Guided by both, in the main, and by such facts as have fallen under our own observation, we will endeavor to establish a connection.

Death, in strangulation as well as in hanging, results from stoppage of the respiration. The *differences* observed, therefore, cannot be due to the fact of stoppage of the respiration. Again, in both there is a mechanical, constricting cause, sometimes like a cord, and not only differing in the direction in which the constricting force is applied. The want of similarity of the post-mortem appearances, and the differences observed, must hence be due to something beside the constricting cause; and nothing remains to explain them but the *manner* and *mode* in which the constricting cause is made to operate, the *force* with which it is applied, the *rapidity* and *completeness* of its action, and the *continuous* or *intermittent* character of the constriction.

In *suicidal hanging*, it is to be observed, in the first place, the will of the victim co-operates with the mechanical constriction, in excluding the entrance of air into the air-passages. There is no violent struggle to draw a full breath, and the suicide counteracts, as far as possible, the involuntary reflex respiratory movements. Under these circumstances, a full expansion of the chest, even if the constricting force be not very great and only the weight of part of the body act upon it, is impossible. The air which enters by involuntary respiratory movements, during the death-struggle, only enters into the bronchial tubes, and not into the air-cells, distending them.

In *homicidal strangulation*, on the contrary, the efforts of the victim are all in the opposite direction. There is a tremendous struggle for air, and, in the great majority of instances, he succeeds, while the combat lasts, in obtaining spasmodically, at longer or shorter intervals, full supplies of air, expanding the lungs with *tumultuous force*.

Here, then, we have an essential difference. But, besides this, there are anatomical differences which lead to the same end.

In hanging, the muscles of the neck, of the larynx and trachea, are put violently and *continuously* on the stretch with a power corresponding to the whole weight of the body. Let any one simulate this condition of things by stretching and stiffening his neck and throwing it backward as much as possible, and *while in this position* attempt to draw a full breath. It will be utterly impossible, under these circumstances, to expand the lungs to their full extent; but, beside this *continuous* cause of interference with inspiratory efforts, there is the *continuous* constriction of the trachea itself, diminishing its calibre; and thus any spasmodic, forcible, tumultuous inflation of the lungs, as in strangulation, is rendered absolutely impossible.

Hence this radical difference between death by hanging and death by strangulation: In the one case, *continuous constriction*, sameness of constricting force, and *absolute incapacity*, even by involuntary respiratory efforts, to distend the lungs; in the other case, uninterrupted constriction, intermittence in the intensity of the force, tumultuous and forcible spasmodic expansion of the lungs extending to the air vesicles.—*Philadelphia Medical and Surgical Reporter.*

CHLORATE OF POTASH INJECTIONS IN LEUCORRHŒA AND ULCERATION OF THE OS UTERI.—Dr. B. Brown, of North Carolina, gives an account, in an American Journal, of two cases in which he used injections of the chlorate of potash (one drachm to eight ounces of water) in leucorrhœa and ulceration of the os uteri, with the best results. Dr. Brown mentions a case of gonorrhœa in a female cured by the same remedy.—*N. Amer. Med.-Chir. Review.*

Communications.

"Occlusion of the Vagina" Successfully Treated by a New Method.

BY A. P. HAYNE, M. D.

ELIZABETH BAKER, æt 20, a native of Germany, was admitted into the Charleston Almshouse during the year 1850, for what had been considered catamenial suppression.

Her appearance corresponded to that of a woman in the sixth or seventh month of pregnancy, and she gave the following history of her case. She had been delivered of her first child about a year previously, having always enjoyed good health up to the time of her confinement. Her labor had been tedious, but otherwise natural. The child was still-born, and in two or three weeks she was up and about her usual occupations. The lochial discharge continued for several weeks, and then gradually ceased. Her health now seemed good, and she noticed nothing peculiar for two or three months, when she perceived a gradual enlargement of the abdomen, with a sense of fullness, and more or less constitutional disturbance. Up to this time, there had been no reappearance of the catamenia.

She had been treated, she said, successively for suppression and dropsy, no vaginal examination having in either instance been made. Having learned this history of her case, I at once made an examination, both vaginal and rectal. Immediately behind the orifice of the meatus urinarius, the finger was met by a firm, resisting membranous adhesion, completely closing the vaginal canal, caused by an adhesion of its two opposite walls. After a very careful examination, we were induced to believe, that this occlusion extended throughout the entire length of the vagina, as high as the os tinca itself.

There was no fluctuation perceptible, either by vagina or rectum, nor any other indication of the presence of fluid, behind the occlusion, save what was to be derived from the enlargement of the abdomen, and the history of the case.

The uterus was distinctly felt nearly as high as the umbilicus, but through its walls no positive sensation of fluid could be detected.

From the nature and general symptoms of the case—the absence of catamenia—and the gradual enlargement of the abdomen, it was very evident that it was a case of retained menstrual secretion from mechanical obstruction. The propriety of an operation either by incision, or puncture, was weighed and abandoned, after due consideration and consultation. The delicacy of any dissection through tissues so thin, and the almost certainty of implicating either the bladder or rectum, rendered the first impossible, while the prospect of temporary relief held out by the latter (leaving the original disease unrelieved) seemed to promise but little better encouragement. Under these circumstances, the difficulty of the case, suggested the plan, which was adopted, and which resulted in a speedy and permanent cure. We determined to attempt a dilatation, by what is known among surgeons as "prepared sponge." A piece of fine sponge, previously moistened, was bound tightly against some hard, resisting body, (in this case, to the bed-post) by a strong cord, and allowed to remain until entirely dry. A piece the size of the double fist was here used, and when dry, the cord was removed, and it was reduced to about one-third of its original size. This was next cut into strips of about two fingers breadth, and each strip folded together. One of these was now introduced into the vagina, and retained there by a compress and bandage. After twelve hours it was removed, and a fresh strip introduced. By the process of absorption, and the tendency to regain its original shape, a slow, but steady process of dilatation was kept up, and constantly maintained. The occlusion was found gradually to yield, and by continuing the treatment for six weeks, the entire difficulty was step by step overcome, until the uterus was reached, and our patient relieved, by the sudden discharge, of very considerable quantity of dark, semi-coagulated and most fœtid collection of menstrual secretion, which saturated the bed-clothes and mattrass, and occasioned no little alarm to herself, as well as to her attendants

Upon examination now, the vagina was found open throughout its entire length, although there was more or less narrowing as it approached the uterus. The compressed, or prepared sponge tent, was now introduced high up, and continued for some days, when the cure was completed and the woman discharged. Feeling an interest in the case, we kept her in view, and two years subsequently, she was safely delivered of a healthy child. We do not, of course claim the originality of the employment of "prepared sponge" in the dilatation of fistulous, or other natural or artificial openings—having seen it extensively used in the French Hospitals by Velpeau and others, but in no treatise have we seen it recommended in cases of complete occlusion of the vagina. In the congenital occlusions which are sometimes met with in newly born infants, Erichson, in his "Science and Art of Surgery" says "this condition may generally and very readily be removed by *tearing up* the canal, as it were, or by dragging upon its walls, in opposite directions, and breaking through the adhesions, which are at this age, but little more than epithelial, wtth the thumb nail, a blunt probe, or the handle of a scalpel. and then introducing a small pledget of greased lint. This procedure doubtless, may be all that is necessary at this tender age, where, as the author says, the attachments are little more than "epitheleal," but in the old and firm adhesions, which were found in the case we have just described, such efforts would be worse than useless. The plan adopted, seemed to us, the only rational one, which the nature of the case admitted, for no other procedure, would probably have been attended with the same happy result.

It is scarcely necessary to add, that the occlusion in this case, was the result of a neglected inflammation of the mucous membrane of the vagina, by which a partial, and finally permanent adhesion took place, between the walls of the canal, throughout its entire extent.

Rupture of the Uterus.

BY GEO. K. SMITH, M.D.

THE following case is submitted not from any particular distinctive feature it possesses, but the sudden and alarming nature of this class of accidents is always a source of interest to the profession.

About 4 o'clock on the evening of the 28th of December 1860 I was hastily sent for by Dr. J. Bailey, to see Mrs. ——, aged about 2nor [illegible] with her fourth child, the first three labors having been uncommonly hard. Found her *in extremis;* no pulsation at the wrist, slight at the carotids; extremities cold. Made an immediate examination per vaginam; vagina relaxed; os uteri fully dilated. The fœtal head (which was of moderate size) could be plainly felt at the superior strait; vertex at the left acetabulum; and there was no question as to the capacity of the pelvis, but the symptoms of approaching dissolution were painfully apparent, and notwithstanding the exhibition of stimulants, she expired in a few moments.

The Doctor gave me the following history of the case. He had been called about an hour previous; found an ignorant old midwife in attendance. The lady had been taken with violent expulsive pains about 7 o'clock, A. M., which continued almost uninterruptedly (the intervals being but a few seconds) until after 2 o'clock, when the midwife becoming alarmed because no advancement had taken place, sent for Dr. B. Upon examination he found presentation correct, dilatation nearly complete, and pains of a proper character, although very severe and frequent, and that labor bid fair to terminate favorably. Suddenly the uterine pains ceased, and the vital powers were rapidly failing; whereupon the Doctor sent for counsel. No movement of the child could be felt after this, nor could the fœtal circulation be distinguished. The appearance of the abdomen, however, remained unchanged. No visible hæmorrhage had occurred, but we agreed in opinion that death had resulted from internal hæmorrhage, and that there was doubtless a rupture of the uterus, although the head had not receded, as generally happens, unless locked in the pelvis. Although strongly desirous of holding a post-mortem examination, we did not propose it to the agonized and almost distracted husband. Late the same evening we were sent for to deliver the child. *Autopsy:* upon dividing the parietes of the abdomen, the cavity was found filled with blood; and on opening the uterus, a fissure was discovered on the posterior surface, extending from the fundus to near the neck of the organ, the body of the child having escaped into the abdominal cavity. The placenta was found universally adherent to the right side of the walls. Weight of the child was probably about seven pounds.

Had the Doctor been called in place of the midwife, so as to have modulated the action of the uterus in the first stage, I have but little doubt that delivery would have been safely accomplished. My record embraces four hundred and sixty-three cases, and this is the first accident of the kind I have ever seen, and God grant I may never witness another.

VOLCANO, Amador Co., Cal., Jan. 5th, 1861.

Osseous Exsections.

BY H. H. TOLAND, M. D.

IN consequence of the difficulty experienced by surgeons before the commencement of the last century in arresting hæmorrhage after amputation, they sometimes attempted the removal of small portions of diseased bone rather than subject their patients to the danger attending more formidable operations; but the exsection of the articulating extremity of a large bone was not performed until 1758, when Wainum removed the superior portion of the humerus in a case of compound dislocation of the shoulder joint. These operations were confined to the superior extremities until 1775, when

Felkin of Northwich exsected the knee, and Moreau the ankle joint in 1782. This method of treating cases in which the bones of the articulations were carious, was not generally adopted, even by eminent surgeons, until long after the time above specified, and not extensively even at present if the number of mutilated individuals that exhibit themselves daily in our streets can be regarded as evidence.

In the work of a distinguished English surgeon, published as late as 1857, we find the following:—

"Thus, for instance, resection of the os calcis may be required for caries of that bone, whilst if the whole of the tarsus is affected, amputation is the only resource; also, excision of the wrist is not an operation that has found much favor with surgeons, the great objection to this operation being that it is followed by a stiff and useless hand and arm."

Notwithstanding the distinguished author of the above quotation entertains a different opinion, I am satisfied that exsection is always preferable to amputation, except in cases that are accompanied with such constitutional symptoms as would contra-indicate a resort to preservative surgery; such as great emaciation, diarrhœa, purulent expectoration, and night sweats, accompanied with an unequivocal strumous diathesis, which was the case in one instance in this city where after exsection had been twice attempted without relief, I thought that amputation of the arm afforded him the best chance for life, which it did prolong by removing a source of constant pain and great constitutional disturbance.

CASE I.

A native Californian, employed by Col. Walker in Contra Costa county, aged 25 years, and otherwise in good health, had the left wrist joint injured in 1857, and suffered constantly from inflammation and its consequences until he visited San Francisco, in October, 1859, when all the bones of the carpus were carious, accompanied with partial anchylosis of the fingers of that hand. Believing that the hand could be saved and rendered useful by exsection of the diseased bones, an incision was made from above the lower end of the radius to the superior extremity of the metacarpal bone of the index finger, by which the carpal bones were exposed without dividing the extensor tendons of the fingers, and through which they were all removed with tooth forceps and a scalpel, these being the only instruments that were found necessary for that purpose. After remaining a few days he returned home, and I did not see him again until March, 1860, when I found him much improved, although still suffering from pain, accompanied with a purulent discharge which escaped an inch or more above the point of the original opening. The lower extremities of the ulna and radius having become diseased, were removed with bone forceps, free lateral incisions made directly over the diseased bones without dividing any of the tendons of the fingers. The water dressing was applied, and he again returned home, being directed to flex and extend the fingers as much as possible every day, until the stiffness resulting from want of exercise was entirely overcome.

A few months ago he visited San Francisco, when I found that a firm and solid substance occupied the site of the original bones. The wrist, although stiff and somewhat enlarged, was healthy, and sufficient strength and motion existed in the fingers to enable him to hold the reins of his bridle, and both he and his employer think that his hand is far better and more useful than anything artificial that could be either constructed or applied.

CASE II.

Robert Mitchell, aged about 45 years, of good constitution, injured the fingers of the left hand very slightly, in September, 1860, which being followed by violent inflammation of the hand and arm, ultimately resulted in caries of the lower extremity of the radius and the adjacent carpal bones, accompanied with pain and a profuse purulent discharge, upon which the constitutional disturbance and existing emaciation depended. He readily consented to submit to exsection of the diseased bones, and on December 19th, 1860, after the administration of chloroform, an incision was made on the radial side of the arm, by which the tendons were avoided and the diseased bones exposed. The first row of the carpal bones was removed with tooth forceps, without the aid of cutting instruments, and the lower extremity of the radius with the bone forceps ordinarily found in amputating cases. After filling the cavity with wet lint, the water dressing was applied, and rest enjoined until the febrile symptoms subsided. Now, Jan. 19th, '61, the wound has nearly closed, and appears to be perfectly healthy; the flexibility of the fingers has increased, and a strong probability at least exists that the hand will not only be preserved, but will also be very useful, in a shorter time than would be required for the stump to cicatrize after an amputation.

CASE III.

M. L., aged 28 years, and of feeble constitution, suffered when young with pain in the left ankle joint, which until three months before he visited San Francisco produced only temporary inconvenience. In June, 1860, being engaged in the lumber business in the northern part of the State, after undergoing great fatigue, he was attacked with violent pain in the affected joint, which was accompanied by fever and other evidences of constitutional derangement. In two or three weeks suppuration took place, and finding no improvement in his condition, he applied to me for assistance, October 1st, 1860. I found his ankle enlarged, painful, ulcerated, and discharging a quantity of unhealthy, purulent matter He had constant fever, was greatly emaciated, and had been suffering from pain in the left side of the chest, accompanied with a troublesome cough, which, after a careful examination, I supposed resulted more from the exhaustion produced by the excessive drain to which he had been subjected than actual pulmonary disease, and if the local difficulty could be controlled, the consequences would disappear. Being willing to submit to any treatment that promised relief, chloroform being given, an incision was made about four inches long upon the external side of the ankle joint, extending from a point anterior to the fibula downward to the metatarsal bone of the small toe. Upon exposing the cavity of the joint, I found all the tarsal bones diseased, which were removed readily with tooth forceps and a scalpel. They were entirely denuded of periosteum, and a majority detached from their connection with the surrounding soft parts, which I thought very extraordinary, as the acute symptoms had only existed about three months. The extremities of the bones of the leg, as well as those of the metatarsus, were healthy, and consequently, were not disturbed. The cavity from which the bones were removed being filled with wet lint, the water dressing, a gutta percha splint, and a bandage were applied. A generous diet, with porter, was then prescribed, with anodynes at night when considered necessary to procure sleep.

By the 1st of December, 1860, his weight had increased fifty pounds, the cavity was filled with solid matter, the discharge had almost entirely disappeared, the external wound nearly cicatrized, and he considered himself sufficiently well to return home. From the condition of the limb when last examined, I feel confident that but little deformity will remain, and by a proper observance of the instructions given for the future management of the case, he will not only have a useful limb but also considerable motion in the ankle joint.

From the extent of the local disease and the constitutional condition of the patient, this case presented as few encouraging symptoms as could possibly exist, and yet his leg was preserved. From the result of this and many other cases of caries of the bones of the articulations, I am convinced that it is rarely necessary to amputate unless the patient is so situated that it is impossible for him to obtain the attention and rest which are required under such circumstances.

CASE IV.

M. S., aged 16 years, and apparently in good health, but of a strumous diathesis, consulted me after suffering four years from a purulent discharge near the middle and anterior portion of the right leg. The tibia was carious for several inches, and a portion of necrosed bone could be felt through the external opening. Anæsthesia being produced, an incision three inches long was made in the direction of the limb and the diseased bone exposed. The removal of the carious bone with the trephine and chisel, exposed the sequestrum about three inches long, which was extracted without difficulty. The usual dressings were applied, and morphia administered when the violence of the pain required the use of anodynes. Although three small bones escaped with the pus after the operation, by the 1st of January, 1861, the external wound was completely cicatrized, and the leg, with the exception of being slightly enlarged, is as healthy and useful as before the existence of the disease. In this case the removal of the necrosis would not have been sufficient, as a portion of the shaft of the tibia was carious, and required exsection.

CASE V.

J. B., an intelligent and apparently healthy boy of 13 years, after complaining of pain in the superior and external part of the right thigh for some months, his physician discovered an abscess on the external surface and near the middle, which was opened, and continued to discharge freely for two or three months, when I was requested to see him in consultation. A probe could be passed upward and inward six inches without coming in contact with diseased bone, in consequence of which a counter opening was made, and an ineffectual effort to close the sinus by iodine injections, bandages, &c. On the 23d of October, 1860, we determined to ascertain the seat of the difficulty by laying open and tracing the sinus to its source, commencing at the point where the counter opening was made, and five or six inches above the ulcer. The incision was extended sufficiently to expose the trochanter major, which, with the the thigh bone, was found carious to the extent longitudinally of three inches, and included about half of its diameter. This was removed with a trephine, chisel, and bone forceps, and had been covered externally by a thin plate of new bone produced by the periosteum after being detached, which prevented the probe from coming in contact with the denuded surface. This patient recovered so rapidly that on January 19th he walks almost as well as before the occurrence of the difficulty, and is ble to attend to his school duties without inconvenience, pain or fatigue.

CASE VI.

J. G., a lad aged 16 years, emaciated and feeble, consulted me August 6th, 1860. I found the tibia curved anteriorly, enlarged, and ulcerated at two points, one near the knee, and the other about two inches above the ankle, from both of which considerable pus discharged daily.

The trephine, chisel, and forceps were used in the removal of the diseased bone, and an incision made upon the center of the tibia where the enlargement was most conspicuous. This patient had recovered suficiently in four weeks to return to the interior, and has long since considered himself perfectly restored.

Editor's Table.

PERSONAL.—DR. TRASK will hereafter have the management of this Journal, editorially and financially, until further notice.

DIPHTHERIA.—*Emetics in full doses often repeated in Croup and Diphtheritic Angina.*—In an essay published by us in 1859, on Diphtheria, we said "first a thorough emetic of ipecacuanha, given in full doses and largely diluted, so as to be vomited immediately. This should be repeated daily for the first two or three days." Concerning this treatment, which has been objected to by some of our contemporaries, we have no reason to change our mind neither on theoretical nor experimental grounds. We are singularly fortunate in being supported by M. Bouchut, (Hopital St. Eugenie,) who has recently (November 8th, 1860, *Gaz. des Hop.*,) furnished six columns in support of emetics in full doses in membranous affections of the fauces and trachea. His success has been almost uniform; he gives from four to fifteen grains of ipecac at a dose, in from three to five ounces of some sweetened liquid. Tartar emetic is added in small doses, from one-fourth to three-fourths of a grain. These doses are given *coup sur coup*, that is, every one, two or three hours, or less frequently according to circumstances.

A YOUNG MAN presented himself to us a few days since with great atrophy of the muscles of the right leg, and talipes equinus of same foot, resulting from a partial dislocation of the ankle joint. He had had his tendo-Achilles divided without benefit. He could not bear scarcely any weight on that extremity, in fact he does not use it, but walks with a crutch. On attempting to walk on the affected foot, he suffers severe and unendurable pain at a point corresponding to the articulation of the inner maleolus with the astragalus, and also along the anterior margin of the upper face of the latter bone. He has been suffering two years without having been at all relieved, though his medical advisers are in every way capable.

We advised first, the redivision of the tendo-Achilles, and if that should again fail to result favorably, exsection of the partially displaced astragalus.

The same day another youth presented himself with paralysis of right arm, right side of the face, and of some of the muscles employed in articulation, his conversation resembling that of a drunken and partially deaf person. His eyes did not act in harmony, so that reading was excessively and rapidly fatiguing, not only to the eyes but brain. All the bilateral functions in the reach of observation seemed perturbed. He said it had come upon him within six months, as a sequel of syphilis.

THE BOY we trepanned, mentioned in last number, has not suffered any untoward symptoms, and has kept about his play as usual since the tenth day after the operation, which latter period we insisted on his being kept quiet much against his inclination.

Lithotomy.—Dr. Toland operated for stone on the — inst., on a boy three and a half years old. The concretion was a solid, double convex, equilateral-triangular body, each side measuring about twelve lines.

Obituary.—In our present number we are called upon to note the deaths of two of our professional brethren, both residents of Sonora, Tuolumne county.

The first is that of Dr. Thompson. The cause of death was cerebral softening. Dr. Thompson was a graduate of Bowdoin College, in Brunswick, Maine.

The second is that of Dr. F. Canton. The cause of death was apoplexy. For several years Dr. C. has sustained an excellent hospital at Sonora. Dr. Canton was a graduate of Montpelier, France.

Books Received.

Compendium of Human Histology. By C. Morel, Professor Agrege a la Faculte de Medecine de Strasbourg. Illustrated by twenty-eight plates. Translated and edited by W. H. Van Buren, M.D. New York: Bailliere Brothers, 440 Broadway. 1861.

This work has been received, and we are obliged to the publishers for so promptly sending us just the book we wanted. We will not presume to say a word of its scientific merits, the names of the author and translator being sufficient guaranties on this point. It contains twenty-eight well executed lithograph plates, which comprise many hundred distinct figures, each drawn from preparations taken from the human subject, and magnified 400 times. There is one feature about this book we hope to see generally imitated in medical literature: every page is accompanied with side notes like law books. These save an immense amount of labor in searching for a required point. The scope of the book will be perceived by the following heads of chapters: Cells and Epithelial Membranes — Fibres; Connecting Tissue — Cartilage, Bone, Teeth—Muscular Tissue—Elements of Nervous Tissue—Vessels, Arteries, Veins, Capillaries, and Lymphatics — Glands — Skin and its Appendages—Intestinal Mucous Membrane—Organs of Sense; Explanation of the Plates.

"Histology, at the present day, is the progressive department of anatomical science, and its rapidly accumulating facts form the basis of modern physiology and pathology. Still in its youth, it is advancing steadily from year to year, and to keep pace with its progress, we must draw constantly upon all reliable sources of information. In our young and busy country the laborers are as yet too few, and too much, of necessity, employed in the active and practical duties of the medical profession, to institute original and systematic researches in minute anatomy to any great extent, and hence we are mainly indebted for our knowledge of it to our brethren of the old world.

"To solicit the attention of the student to the subject of general anatomy, and to furnish him with an attractive text-book in a less elaborate form than the excellent works of Todd and Bowman, the Cyclopædia of Anatomy, &c., &c., is the object with which I have prepared the present volume for the press. I trust it may serve the purpose of an introduction to the more extensive works on the subject, and also to the numerous and faithful laborers in this department of science in Europe, and especially in Germany, where it is most successfully cultivated."

SIXTH ANNUAL REPORT TO THE LEGISLATURE OF SOUTH CAROLINA, relating to the Registry and Returns of Births, Marriages and Deaths, in the State, for the year ending December 31, 1859. By Robert W. Gibbes, Jr., M.D., Registrar.

This is an able and interesting report. It is much to be regretted that California has no adequate system of registration. All the professions are especially interested in the natural laws which govern different peoples. It is now a well understood fact that the most unimportant acts are under the control of great general laws. For example, in a given country, the weather and crops being uniform, just about the same number of persons will marry, at the same ages and at the same seasons of the year, even to a month, year after year. The same number of persons will commit suicide by the same means. The same number of persons will forget to write the name of the post-office on their letters. The same number of persons will die by suffocation from getting some solid substance lodged in the throat in eating. The same number of conjugal infidelities will occur, &c., &c.

We do not say these things will occur with rigorous exactness from year to year, or decade to decade, but with such an approximation to uniformity as to be almost appalling to reformers. Even the spasmodic acts of reformation and relapsation into vicious ways, are under the control of the same hidden but not undiscoverable laws. Individuals change, but masses preserve their identity. A learns to do well, while B, who did well before, learns to do evil.

If any one wishes a copy of the above mentioned Report, we presume the Registrar would send it by mail.

AN EPITOME OF SURGERY. By. J. Beadnell Gill, M. D., author of "An Epitome of Botany;" late House Surgeon, etc., etc., at the London Hospital. New York: Baillière Brothers, 440 Broadway. 1860.

This is a neat little book of one hundred pages, and can be conveniently carried in the vest pocket. It contains a homeopathic amount of almost every thing pertaining to the science and art of surgery. It is certainly worth twelve and a half cents (the published price) to any one in or out of the profession; but we cannot form the most remote idea for what literary or scientific purpose the little thing was published.

RECEIVED from C. H. Cleavland, M.D., Cincinnati, "The Physicians Pocket Memorandum for 1861."

This is the best and the most convenient thing of the kind we have yet seen. It contains about one hundred pages, in fine type, of condensed medical and surgical information, which *might* on occasion be very convenient. Please send me another. I have lost the one you sent me.

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Selections.

On the Theory and Therapeutics of Convulsive Diseases.

BY CHARLES BLAND RADCLIFFE, M.D.,
Fellow of the Royal College of Physicians, London.

[Concluded from last number.]

III. *The Theory of Spasm.*

1. In *catalepsy*, the state is closely akin to that of a corpse. The blood, indeed, is well-nigh stagnant in the vessels; and it may be necessary to apply the ear to the chest to know for a certainty that the heart continues to beat.

In *tetanus* there is no fever. All observers are agreed upon this point. It is found also, that the spasms are apt to become more general and more violent as the pulse weakens and the animal heat departs. The bouts of spasm, moreover, are distinctly coincident with paroxysms of difficulty of breathing; and in this way the spasm would seem to be connected, not with excitement of the circulation, but with a state in which the aeration of the blood is considerably interfered with. And, in the tetanus caused by strychnia, there is certainly nothing like vascular excitement; indeed, as we have already seen, the experiments of Dr. Harley afford conclusive proof that the addition of a very minute quantity of the poison to the blood might be considered as equivalent to a loss of two-thirds of the whole amount of blood, inasmuch as it diminished by two-thirds the power which the blood has of absorbing oxygen, and so becoming arterial.

During the spasms of *cholera*, the skin is frigid, clammy, and blue, the breath cold, the pulse well-nigh imperceptible; and that the coincidence of this state of collapse with the spasm is more than accidental would seem to be evident from the fact that the spasms relax *pari passu* with the reaction of recovery.

In *hydrophobia*, the state of the circulation is the very opposite of fever, as is proved by the cold hands and feet, the perspiring skin, the quick and feeble pulse, the sobbing and sighing respiration, as well as by the fact that the agitation, spasm, and convulsion increase in violence as the circulation fails. It would seem also, that this very depression of circulation must be connected with the agitation, spasm, and convulsion; for, on looking over the histories of a large number of cases, I find that there was less agitation, less spasm, less convulsion where the circulation was less depressed than usual.

In *spasmodic ergotism*, so far as we know, the pulse presents no sign of excitement throughout the whole course of the malady.

In the "early rigidity" of cerebral paralysis, there may be at first no very evident alteration in the circulation, and the heat may not fall below the normal standard; but before long, both pulse and heat fail in the paralyzed parts. In "late rigidity," the local circulation is always feeble, and the heat in the part is kept up with difficulty.

In acute spinal meningitis there may be symptoms of active fever at the onset, but, if so, these symptoms very shortly lapse into those belonging to the typhoid condition. Usually, however, the symptoms have a typhoid aspect from the beginning, and the respiration is too labored and imperfect to allow of a different state of things. In acute myelitis, the circulation is utterly without power; and, as a collateral evidence of this fact, there is a marked disposition to slough in all the parts subjected to pressure. In chronic spinal meningitis, and in chronic myelitis, the state is one of hectic exhaustion.

In the different forms of minor spasm there is, for the most part, no evidence of over-action in the circulation; nor is it otherwise when the phenomena of fever are mixed up with the spasm, as in whooping-cough. For what is the fact? The fact is that the whoop, which is the audible sign of the spasm, does not make its appearance until the febrile or catarrhal stage has passed off; that it disappears if pneumonia, bronchitis, or any other inflammation be developed in the course of the malady; and that it returns again when the inflammation has departed. In this case also, as in laryngismus stridulus, the way in which the spasm is mixed up with the phenomena of partial suffocation is an argument that the blood is imperfectly arterialized during the spasm.

2. In the more severe forms of the disorders which are characterized by spasm, the mental state is indicative of exhaustion, prostration, or inaction. In catalepsy, the mind is in a deep sleep, or else lost in some dreamy vision. In tetanus, the patient is alarmed, absorbed in his sufferings, agitated. The cramps of cholera are attended by indifference to the future and utter hopelessness, than which there can be no surer sign of utter mental prostration. In hydrophobia, everything denotes the want of mental energy, for the state is an exaggeration of delirium tremens. In ergotism, the mental state borders closely upon fatuity. In both forms of the rigidity of cerebral paralysis, early as well as late, the brain has been seriously damaged by white softening, by apoplectic effusion, by red-softening, or in some other way, and the mental power has suffered accordingly. Nor is the case different in other forms of spasm.

The state of mind, indeed, is what it might be expected to be from the depressed state of the circulation; and the depressed state of the circulation (to use once more the argument used on so many previous occasions) is one which necessitates, as it would seem, a corresponding state of inaction, not only in the brain, but in the medulla oblongata, the spinal cord, and in all other parts of the nervous system. Nor do there appear to be any objections to this view in the background.

The traces of inflammation which are occasionally met with in the brain or spinal cord of persons dying of tetanus need be no such objection. It is evident that inflammation of these organs or their coverings is not an essential condition of the disease, for in the majority of cases —as in those occurring in Guy's Hospital since 1825—there was not the slightest trace of such a lesion. Nay, it may even be said that the inflammation, where present, had served to mitigate or antagonize the tetanic contractions; for it is certain that these contractions may be developed in their most violent and perfect form where inflammation is most unequivocally absent, and that the contractions may be absent where (as in many cases of inflammation of the cord or its membranes resulting from accident) inflammation is most unequivocally present.

In hydrophobia, also, as in tetanus, the cases in which traces of cerebro-spinal inflammation are not found after death are, to say the least, quite as numerous as the cases in which they are found; and hence it is equally impossible to suppose that such inflammation is essential to the malady. It must be understood, also, that the traces of inflammation in hydrophobia are met with almost anywhere and everywhere; and thus it may be conjectured, with no small share of reason, that the inflammation in this malady is in reality a depurative process by which the system strives to rid itself of the virus, and that traces of inflammation are not usually found because death has happened before there had been time for the development of them. This vagueness in the seat of the traces of inflammation is well seen in a careful analysis of forty-six cases of hydrophobia by my brother, Mr. Radcliffe, of Guildford street.

And certainly it is not easy to suppose that inflammation of the spinal cord or its membranes is necessarily concerned in the production of spasm. On the contrary, it may be held that the inflammation has antagonized or mitigated the spasm. For if violent and general tetanic symptoms may be developed in cases where the spinal cord is altogether untouched by inflammation, as in many cases of tetanus; and if, as is certainly the case, the tetanic symptoms are comparatively slight and confined to the back and neck, where the spinal cord is actually and unmistakably inflamed, is it not fair to suppose that the inflammation has had the effect of antagonizing or mitigating the spasm?

As in the different varieties of tremor and convulsion, therefore, so in the different varieties of spasm, the facts would seem to be altogether at variance with the idea that the muscles are provoked to excessive contraction by excessive stimulation of any kind. The facts, it would seem, are at complete variance with this idea, and in as complete harmony with that theory of muscular motion which was propounded in the first lecture. It would seem, in short, that the key to the pathology is supplied by the physiology, and that the physiology is confirmed and established by the pathology. It is the same story throughout.

II.—THE THERAPEUTICS OF CONVULSIVE DISEASES.

Arguing from the physiological and pathological premises, it may be inferred that the fact of tremor, or convulsion, or spasm, can, in no single instance, be urged as a plea for the adoption of "lowering measures." It may be inferred, indeed, that the great desideratum in every convulsive affection is a more vigorous circulation and a purer blood, and that the remedies to be sought after will be those which bring about these changes.

1. I know of no facts which show that a low diet is beneficial in epilepsy. On the contrary, I know of many instances where the patient has been undoubtedly benefited by the abandonment of such a diet. The meals, of course, must always be regulated so as to guard the stomach from an overload of food; but of the two evils, abstinence is more to be dreaded than repletion. It would seem, indeed, as if the stomach of a confirmed epileptic can never be allowed to remain entirely empty, without some risk of an attack.

As a rule, also, stimulants, of one kind or another, would seem to be very serviceable. In some cases, it is true, malt liquors may be objectionable; but in these cases it will generally be found that unquestionable good will result from a proper allowance of sherry, weak brandy-and-water, or, better still, of claret. Indeed, I am satisfied that epileptics, and nervous patients generally, will have good reason to overlook the shortcomings of the recent treaty by which, at reasonable rates, they will be able to substitute the light wines of France for the fiery wines of Spain and Portugal, and the strong ales of our own breweries. Coffee, also, would seem to be a more suitable beverage than its less stimulating companion, tea, particularly at an early period of the day.

It is, no doubt, of extreme importance to prevent the accumulation of effete matters in the bowels, and to remove such accumulation when it has taken place; but whether purgatives are the proper remedies is not quite so certain. If the bowels do not act with sufficient regularity, there is in all probability, some error in the diet—some excess of animal food, some deficiency of culinary vegetables and fruit; and the first thing to be done is, obviously, to correct this error. And this is often all that is wanted, if care be taken to explain to the patient that his bowels can act without purgatives, and that he need not—particularly if advanced or advancing in life—be altogether cast down if now and then they do not act every day. Indeed, if the diet be properly regulated, and this explanation made, the patient will generally have the satisfaction of finding his tongue clean, when he remembers to look at it, and of forgetting his stomach and bowels altogether.

Or if the result be not quite so satisfactory, an occasional injection of cold water or brine, on getting up in the morning, will rarely fail to set matters right, and that without disturbing the digestion in any way, or producing disagreeable feelings of depression or irritability.

As to the rest, it appears to be advisable to order the habits in such a way as to save the strength as much as possible. Proper exercise is, of course, necessary; gymnastic exercises, by which the chest is expanded, and the respiratory capacity increased, are valuable adjuvants; but it is no less certain that muscular exertion upon or beyond the verge of fatigue must be looked upon as a common cause of the epileptic attack. As a rule, also, it would seem that epileptics require more than the average amount of sleep, to enable them to recover from the multifarious fatigues of the day and night.

The more strictly medical part of the treatment of epilepsy is a subject of no small difficulty. The treatment of the present day is very different from what it was when almost all disorders were referred to inflammation or overaction of one kind or other. Practically the lancet is now abandoned, and leeches are in a fair way of being left undisturbed in their swampy homes; practically, also, it has ceased to be the habit to distress the stomach and bowels by the frequent use of strong purgatives or emetics; and this change may be appealed to as an argument that "lowering measures" had disappointed the hopes of those who had tried them so long and so patiently, and who gave them up so unwillingly. Be this as it may, a great change has come over the treatment of epilepsy, and the remedies at present most in vogue in this country are certain preparations of zinc, copper, and silver, particularly the oxide of zinc, and the ammonio-sulphate of copper.

The present fancy for oxide of zinc has been caught from M. Herpin, who has devoted a substantial volume to the purpose of showing that many cases of epilepsy may be cured by the vigorous and persevering use of this remedy. In this work, M. Herpin relates thirty-eight cases of epilepsy or epileptiform disease, in nearly all of which he gave the oxide of zinc; but, as I have elsewhere shown, the favorable opinion of this physician as to the virtue of this medicine is by no means borne out by an analysis of those cases. It would appear, moreover, that M. Herpin himself has become less confident than he was in 1852, when he wrote the work in question, for a more recent statement is "que l'oxyde de zinc, ne cessant point d'etre convenable pour les enfans et les vieillards, echoue tres souvent chez les adults." M. Delasiauve, who quotes these words, tells us that one reason for this change of opinion was the absolute failure of an experiment in the Bicetre, in which one of the physicians of the establishment, M. Moreau, treated eleven adult epileptics in every particular after M. Herpin's method. M. Delasiauve also tells us that M. Herpin now gives the preference to the ammonio-sulphate of copper in the treatment of adults. I might argue, also, that his faith is even shaken in this remedy, for I have recently had more than one patient, who had previously been under him, in whose case he abandoned the copper after a very short trial, and trusted to a vegetable simple, of which I shall have to speak presently. Nor can I speak favorably as to the results of the trials, nine in number, in which I gave oxide of zinc after M. Herpin's method; and my experience in this respect agrees fully with that of my friend and colleague Dr. Marcet, who, more perhaps than any other man in this country, has put this mode of treatment to the test of experience. At the same time, it does not follow that zinc is of no value in epilepsy. On the contrary, the probability is, that it is a remedy of considerable value in the proper case and in moderate dose; and this opinion is not a little supported by the beneficial results which Dr. Marcet has recently found to attend its use in many forms of nervous excitability. Of the other preparations of zinc it is not necessary to speak, for there is every reason to believe that their action for good or evil is analogous to that of the oxide.

It is not easy to obtain any sound evidence of the value of the ammonio-sulphate of copper in epilepsy. Speaking of the cases recorded in his published work, M. Herpin says that, including relapses, he obtained fourteen cures in eighteen patients; but when these cures are fairly analyzed, they do not turn out to be a whit more satisfactory than those which he ascribes to the oxide of zinc. Nor do I know of anything thoroughly satisfactory in the experience of others. For myself I ought scarcely, perhaps, to express an opinion, for I have never given the medicine a fair trial; but I have met with several patients who have taken it, under the advice of other physicians, and of these I have no hesitation in saying, that not a few, on being asked how they were affected, have said that they felt more nervous while taking it, and that no beneficial change was produced in the fits.

With respect to nitrate of silver little need be said. I have had three patients under my care whose skin, before they saw me, had been tinged of a dismal gray color, and whose fits had been worse, rather than better, during the time they were taking the silver; and many cases are on record which show that this evil may happen without any countervailing good.

"Of all the metallic remedies," says Dr. Watson, "I should prefer some preparation of zinc or iron;" and I believe there are signs of change of opinion in the minds of many thoughtful men, and that before long iron may be placed before zinc, and not after it. If, as has been said, the inferences from the premises is that the desideratum in epilepsy is a more vigorous circulation and a purer blood, it is to be expected that iron may not unfrequently be wanted; and this expectation is not belied by my own experience. At the same time I must confess that there are many cases in which this remedy fails to bringa bout any beneficial result, and where harm rather than good may be said to attend its use.

In many cases, also, another common remedy, which is not mentioned in Dr. Watson's chapter on epilepsy, and which is also overlooked by almost every other author, would seem to do good. This is quinine. But with this remedy, as with iron, it must also be confessed that there are other cases in which, to say the least, the good done is not unequivocal.

In a word, it is exceedingly difficutl, in the present state of our knowledge, to decide as to the value of these remedies in epilepsy; but that zinc is no specific, and that the common tonics mentioned are not of themselves sufficient, must, I doubt not, be the confession of every one who has had sufficient experience in the matter.

Where, then, must we turn for what is wanting? Is it to remedies of a directly stimulating character? Is it to remedies which may be supposed to purify the blood from certain matters which ought to be excreted, but which being retained produce a depressed or oppressed state of the circulation?

"If," says Dr. Watson, "I were called upon to name any single drug from which, in ordinary cases of epilepsy, I should most hope for relief, I should say it was the oil of turpentine. And I find that other physicians have come to the same conclusion. Dr. Latham the elder was, I believe, the first person who made known its efficacy in this disorder. Foville states that he has seen excellent effects from it. It is highly spoken of by Dr. Perceval in the 'Dublin Hospital Reports.' It is not given in large doses, but in smaller ones frequently repeated; from half a drachm every six hours." And that turpentine is a valuable remedy in epilepsy, very valuable, I have no doubt whatever.

Another remedy which puts in its claim for approval is valerian. This is a very favorite remedy, both in this country and elsewhere, and its claims, though not equal to those of turpentine, appear to be in every way deserving of attention. Recommended by Aretæus and Dioscorides, and in use ever since, it was never other than a favorite remedy. Now the prominent action of valerian is that of a stimulant—an action depending upon the presence of a composite volatile oil, of which one portion is a volatile acid, capable of forming a salt with bases, and known under the name of valerianic acid; and it is a natural question, after what we know of turpentine, whether the stimulating action of the drug does not show that it may be efficacious, and explain the secret of its efficacy.

It is somewhat significant also, that the *selinum palustre* is one of the four principal remedies to which M. Herpin has pinned his faith; and not only so, but the one to which he gives precedence. These four remedies, ranked in the position belonging to them in an *ordre de merite*, are —selinum palustre, ammonio-sulphate of copper, oxide of zinc, and valerian. Now, selinum palustre is an unbelliferous plant, of which several grammes may be taken at once; and, on questioning three or four patients who have taken it, the answer was that they were warmed and comforted by it. In other words, its action would seem to be that of a feeble stimulant.

Under these circumstances, therefore,—believing that a more active state of the circulation is a desideratum in epilepsy, and having these practical arguments in favor of turpentine and valerian,—a sufficiently natural question was whether camphor, naphtha, or ether in its various forms, or any of the stimulant gum-resins, or musk, or castor, or some other stimulant would be of use in epilepsy. Nor, if I can read aright the lessons of my own experience, is the answer different from what might be expected.

That camphor is often a very valuable remedy in epilepsy I have no doubt in my own mind. In doses of about three grains, twice or thrice a day, for a time, I have seen such results as to justify me in ascribing to camphor all the virtues belonging to turpentine, with this addition in its favor—that it is not unpleasant to the taste, and that it exercises, or seems to exercise, a directly quieting influence over the generative and urinary organs.

Naphtha also would seem to have the advantages without the disadvantages, of turpentine. In doses of from half a drachm to a drachm, and taken for some time, I have often had what seemed to me unequivocal evidence of its beneficial action. As a rule, also, a patient soon becomes indifferent to the taste, particularly if it has been redistilled more than once.

Of the stimulant gum-resin, my experience is not very ample; but I think I have seen enough to satisfy myself that, in several cases, they are of considerable value. Of musk and castor I have no experience.

With respect to the different forms of ether, Hoffman's anodyne, chloric ether, spirits of nitric ether, and so on, there can, I think, be no doubt as to their great value as occasional remedies; and the same may be said of ammonia. In the majority of instances, it is only to this class of remedies we can trust for warding off a fit. In some cases, also, ammonia would seem to be of much use as an alkali in a point of view of which we have now to speak. But however beneficial stimulants may be, it is necessary to confess that they will not do all that is wanted. It would appear, indeed, as if something were wanted which will carry out the second indication, and ensure—what has been spoken of as—a purer condition of the blood. Nor are we here altogether in the dark.

"About fourteen months ago," wrote Sir Charles Locock in 1853, "I was applied to by the parents of a lady who had had hysterical epilepsy for nine years, and had tried all the remedies that could be thought of by various medical men (myself amongst the number) without effect. This patient began to take *bromide of potassium* last March twelvemonth, having just passed one of her menstrual periods, in which she had two attacks. She took ten grains three times a day for three months; then the same dose for a fortnight previous to each menstrual period; and for the last three or four months she has taken them for only a week before menstruation. The result has been that she has not had an attack during the whole of the period. I have also tried the remedy in fourteen or fifteen cases, and it has only failed in one, and in that one the patient had fits not only at the times of menstruation, but also in the intervals."

In using bromide of potassium in these cases, Sir Charles Locock's object was to calm an erotic disposition, which attended and aggravated the epileptic symptoms, and this end may have been, and in all probability was answered. But this is certainly not the only way in which this remedy acts beneficially. On the contrary, after trying it in scores of cases during the last two years, I can testify that bromide of potassium is a very valuable remedy in cases where there is not the slightest sign of an erotic disposition. I can testify, indeed, that this remedy has proved more or less serviceable in cases the most dissimilar in character—so serviceable that the name of Sir Charles Locock ought always to be remembered with gratitude by every epileptic, and by many suffering from other kinds of convulsive disorder. How to explain the *modus operandi* of this medicine is no very easy matter; but I am inclined to think that this in part at least, is by an alterative action upon the blood analogous to that produced by iodide of potassium and common salt—an action by which, possibly, the blood may be kept free from compounds analogous to uric acid. And this I do, because for a long time I have found decided benefit from occasional doses of a mixture containing bicarbonate of potass and iodide of potassium, with or without a drop or two of tincture of colchicum or wine of white hellebore. At any rate, the alkaline character of the compound would seem to be necessary in some cases; for on looking over about thirty cases in which I tried bromide of iron, as well as bromide of potassium, I find that in the majority the latter preparation had a more beneficial action than the former.

At any rate there can be no doubt that a healthy action of the kidney, and of every organ by which the blood is kept in a state of purity, is essential to the successful treatment of epilepsy.

But, it may be asked, what is to be said of the thousand specifics which have been recommended from time to time? What, amongst others of strychnia, belladonna, conium, cotyledon, umbilicus, poudre de Neuchatel, tracheotomy, and cauterizations?

Strychnia, as all know, was a favorite remedy with the late Dr. Marshall Hall; but the dose was attenuated to such a degree as to render it somewhat difficult to believe that much good came of it. Dr. Hall, indeed, distinctly allowed that harm is done if the dose be sufficient to produce the physiological effects of the drug.

Belladonna—a remedy recommended by Stoerk, and used some years afterwards by MM. Debreyne and Bretonneau—has been again brought into notice by M. Trousseau, who says he has employed this remedy for twelve years, and always had under treatment from eight to ten patients. He says, further, that of 150 persons so treated, 20 have been cured, or, at any rate, that their fits have not returned; and that M. Blacke, who employed it during the same period in a large private practice, has met with a like proportion of successes and failures. It is a fair question, however, whether 13 per cent. of successes (which may, possibly, in part at least, be explained in a different way) can be regarded as sufficiently conclusive evidence in favor of the remedy; and this the more, as other practitioners, M. Delasiauve amongst the number, have been less successful. Judging from my own experience, my impression would be that belladonna is of very doubtful value. Nor is a more favorable conclusion to be drawn respecting *conium*. I have tried this remedy in several cases, in small and also in full doses; but the result was no more satisfactory than that which had been already arrived at by Professor Schroeder Van der Kolk.

With regard to *cotyledon umbilicus*, it is not very easy to believe in any powers beyond those which may be derived from the imagination acting upon a new and innocent medicine. It is very possible, also, that some part of the benefit, where there has been any benefit, may be ascribed to the leaving off of some less innocent drug.

Poudre de Neuchatel is a remedy which has some credit in Switzerland, and which has lately been brought prominently under our notice by having been given in some of the cases recorded by M. Herpin. And what is this remedy? It is none other than the powder of *taupe grille*—in plain English, fried mole. It is, indeed, a relic of the days when animal remains, of a more objectionable character, fried or otherwise, were offered to the unhappy epileptic. In justice to M. Herpin, however, it must be said that he does not *believe* in this out-of-the-way remedy. He only tries it when other remedies have failed.

And certainly it must be allowed that *tracheotomy* does not realize all the original hopes of Dr. Marshall Hall. It does not always, perhaps usually, make the convulsion slighter. It does not prevent danger, for (as I have shown elsewhere) of the few patients upon whom the operation was performed, three have died either in the fit, or in connexion with the fit, and of the three the opening was free from all obstruction, at least in one. The first two cases, indeed, were calculated to damp the hopes of any one less sanguine than Dr. Marshall Hall. In the first case, the patient was a boatman, aged twenty-four, epileptic for seven or eight years, and whose fits were frequent and severe. The operation was performed by the late Mr. Cane, of Uxbridge, during a fit of "asphyxial coma," which had lasted nineteen hours. The relief was immediate, and for some months afterwards the fits were absent; but unfortunately for the credit of the operation, the patient, not liking the gurgling noise and the muteness consequent upon the unnatural opening in his windpipe, *had chosen to wear the tube with its opening carefully corked up.* This information I had from Mr. Cane himself. Very soon afterwards the man was lost sight of, having been discharged from his situation for drunkenness. In the second case, that of a woman, aged thirty-six, *death happened in a fit* about twenty months after the operation, and it is certain that the tube was open at the time. It is certain, also, that the fits continued after the operation, possibly a little less frequently and severely, but decidedly of the same

As to the value of *cauterizing the larynx*, it is less easy to come to a conclusion. Dr. Brown-Sequard says that a third of his epileptic guinea-pigs were cured by this mode of treatment, and that all the rest, with the exception of two or three, were relieved; and he suggests a similar mode of treatment in epilepsy. A little later, Dr. Eben Watson, of Glasgow, recommended a similar mode of treatment, and relates three cases—two by himself, and one by Dr. Horace Green, of New York—in which the treatment appears to have been carried out with benefit. Dr. Brown-Sequard also lays stress upon *cauterization in other parts*, as in the nape of the neck, and especially in the neighborhood in which the aura originates, and he prefers the moxa or hot iron to milder measures. This practice, he tells us, proved very successful in his epileptic guinea-pigs. In a word, Dr. Brown-Sequard furnishes us with some additional facts in favor of *counter-irritants* as a means of cure in epilepsy; and not only so, but he gives a hint which may prove to be of some practical value, in pointing out the larynx, and the locality in which the aura originates, as sites in which "counter-irritation" *may be* especially serviceable. Now, the verdict of past experience is very much in favor of counter-irritants, and I can well believe that this verdict is true—true because the inflammation caused by the counter-irritant may for the time rouse the sluggish circulation of the epileptic towards a pitch of safety, and because the discharge may tend to rid the blood of some impurity; but my own experience in this matter is too limited to enable me to arrive at a sound conclusion.

With regard to the treatment of the epileptic fit little need be said. As a rule, it will be only necessary to take care that the patient does not injure himself; that the head is not allowed to hang too low; and that any necklace or neckerchief be loosened. If salt be at hand, a spoonful may be put into the mouth; if water be within reach, a little may be sprinkled upon the face, though the advantages of such a practice are scarcely sufficient to compensate for disadvantages and risks arising from wetted garments. In ordinary epilepsy, it can scarcely ever be necessary to have recourse to chloroform, as it may be in some prolonged epileptiform affections; but if the convulsive stage is unuusually prolonged, no remedy would seem to be more appropriate and effectual.

In concluding these brief remarks upon the therapeutics of epilepsy, we may say with Marshall Hall—"There is no royal road to the cure of epilepsy. The idea of a remedy for the disease is unphilosophical; and the treatment should consist in a well-advised plan, embracing every means of good, and avoiding every means of harm."

2. A single word must serve for what has to be said upon the therapeutics of other convulsive diseases. Where these diseases are of a chronic character, whether the convulsive symptom be tremor, convulsion, or spasm, it matters not which, there appears no reason for adopting an opposite plan of treatment to that which has appeared to be necessary in ordinary epilepsy. Nor does the case appear to be different where the convulsive symptom is associated with disease of an acute character. Inflammation, in itself, is no longer regarded as a sound argument for the adoption of lowering measures; and if inflammation in itself does not call for these measures, it certainly does not follow that a louder call is made by the occurrence of tremor, or convulsion, or spasm, before or after the inflammation. On the contrary, the natural inference from the premises is, that the convulsive movement might often have been prevented by more carefully husbanding the strength of the patient. According to the premises, indeed, the presence of tremor, convulsion, or spasm, would be a reason for transfusing blood, rather than for abstracting blood, except, perhaps, in one single case, and this is where, from the unusual prolongation and severity of the asphyxia in a first attack, there

is danger of hæmorrhage into the brain and lungs. And certainly there is no practical objection to this view, for all must admit that we have no reason to be satisfied with the results of a lowering plan of treatment in acute convulsive disorders.—*London Lancet, Sept.*

RUSSIAN CIVIL HOSPITALS IN 1858.—According to the report for 1858, just issued by the Russian Government, the entire number of persons received into these in 1858 amounted to 293,153, of which number 246,747 recovered, 24,583 died, and 21,823 remained under treatment; so that the mortality was about 83.85 per 1000. Inflammatory, rheumatic, gastric, and especially catarrhal fever occupied the first rank. No part of the Empire escaped the influenza, but nowhere did it exhibit marked malignity. The same observation may be made concerning ague, which, however, assumed a bad form in the St. Petersburg district. In several places Fowler's solution was found to be of efficacy, while the preparations of bark were of little service. Of typhus and typhoid there were 20,062 cases, with 15,556 recoveries and 3415 deaths. Cholera prevailed epidemically in some places, not quite half those attacked dying. Of dysentery there were 138,90 deaths to 1000 recoveries; and of acute exanthemata there were 71.14 deaths to 1000 recoveries. Croup prevailed epidemically in various places, 533 deaths occurring from among 1809 cases. There were 9648 patients suffering from tuberculosis with 4430 deaths, from scorbutus 3437 with 252 deaths, 28,952 from syphilis with 237 deaths. Of 115 persons bitten by animals with rabies 23 became affected with hydrophobia, all dying. The bite of the wolf has been found to be more dangerous than that of the dog. There were 2 cases of acuta glanders in man. There were 933 major operations performed during the year, the patients recovering in 838 and dying in 95. Of these, 248 were amputations of the large limbs, with 205 recoveries and 43 deaths: 24 disarticulations, with 3 deaths: 14 resections, 78 lithotomy operations, 90 extirpations of cancer, 49 cataract operations, 28 for phymosis and paraphymosis, 3 tenotomy operations, 9 herniotomies, and 2 tracheotomies.—*Med. Times and Gaz.*, Dec. 1, 1860, from *Deutsche Klinik*, No. 40.

OBSTETRIC STATISTICS.—By T. Smart, L R.C.P., of Edinburgh.—The number of cases was 5026. Face presentations, 7, born dead, 2; face to pubis, 20, dead, 6; hand with head, 3, dead, 1; shoulder, 3, all dead; hand and arm. 23, dead, 11; breech, 66, dead, 18; prolapsus of funis, 22, dead, 13; footling cases, 62, dead, 29; placenta prævia, 9, dead, 3, from exhaustion; forceps used in 32, dead, 13, all l the mothers did well; craniotomy, 14; face presentation, 1; funis and vertex, 3; convulsions, 1; vertex, 9, three mothers died; puerperal convulsions, 18, died, 3; plurality of children, 72 cases, two distinct membranous sacs in each case, 16 distinct placentæ, 56 with but one placenta, all the females did well; hydatids, 1; acephaloid, 1; congenital encephalocele, 1 dead born; 1 case of deficiency of arm; imperforate anus, 1; hare-lip and cleft palate, 3; spina bifida, 3; os occipitis deficient in 1; frontal and part of parietal bones deficient in 1; deaths of mothers, 11.—*Lancet*, Oct. 13, 1860.

Anatomical Character of Peyer's Glands in Infantile Typhoid.

BY DR. JOS. BIERBAUM.

"COMPARING the lesion of Peyer's glands as found in the child with that occurring in the adult, we notice some remarkable peculiarities.

(1.) In children, the raised patches are of a soft consistence, especially when death occurs early, while in adults they show a hard, elastic resistance. In the latter, the typhoid infiltration destroys the follicles, their interspaces and walls, as well as the covering mucous membrane, and ulceration and scab formation must ensue; while in the former, the mucous membrane is only adherent or softened. From this difference it is clear why the disease is less dangerous in children than in adults. On what this difference of anatomical lesion depends is as yet unknown. It is surely not accidental, and may perhaps become understood on thorough investigation into the peculiar structure of the glands during childhood.

(2.) While the submucous tissue is always diseased in the adult, it is, according to Barther and Rilliet, in the child, neither injected nor softened, but almost always perfectly healthy. Friedleben declares, however, to have found this submucous connective tissue in a state of softening in children as well as in adults, so that further exact observations are wanted to settle this point.

(3.) According to Friedleben, the typhoid infiltration is more incomplete in children than in adults.

(4.) In children, the inflammation of Peyer's and the solitary glands usually terminates by resolution. This is probably principally due to the superficial character of the inflammation, the deeper tissues remaining in the healthy state. Ulcerated patches, so extremely frequent in adults, but seldom occur here; and this fact of the resolution of inflammation of Peyer's glands in children explains why neither ulcers nor cicatrices are found after death, although the symptoms during life left no doubt as to the actual existence of typhoid fever. The rare occurrence of ulceration yields also a satisfactory explanation of the rarity of hæmorrhage and perforation of the bowels in children."

Having translated the above extract, which speaks for itself, we take pleasure in recommending the entire monograph of Dr. Bierbaum as the best treatise on typhoid or enteric fever, as it occurs in the age of childhood, extant.—*American Medical Monthly.*

MEDICAL PRACTITIONERS IN PRUSSIA.—At the end of 1859 there were for the entire Prussian Kingdom, 1 physician to 4,099 inhabitants, 1 surgeon (an inferior practitioner) to 10,823, 1 apothecary to 11,602, and 1 midwife to 1554 inhabitants. Of course the proportion differs in different parts of the kingdom, and in the capital is as follows: 1 physician to 953 inhabitants, 1 surgeon to 4,477, 1 apothecary to 11,710, and 1 midwife to 3,198.—*Berlin Med. Zeit.*, No. 45.

On a Puerperal Epidemic at the Wurzburg Obstetrical Establishment.

(Scanzoni's Beitrage, band iv. pp. 238–249; Med. Times and Gazette.)

BY DR. O. VON FRANQUE.

THIS institution, which is under the care of Scanzoni, has been but recently established, and is placed in a healthy, airy position. It averages 360 pregnant women, and from 350 to 360 births annually. The epidemic occurred during February, March, and April, 1859. In this period there were 99 deliveries; the forceps were applied four times, and turning was resorted to once. Thirty of these cases were attacked with puerperal fever, and nine died. One of the women died of phthisis, and one of eclampsia. Of the 102 children born, 8 were dead, and 9 died subsequently. Premonitions of the epidemic were met with at the close of 1858, in the form of mild peritonitis, etc. About this time, irregularities in the parturient process were frequent, consisting in deficiency of pains, irregular spasmodic contractions, and rigidity of the os uteri. In some of the fatal cases this last condition caused excessive prolongation of the labor, which itself powerfully predisposes to the disease. Almost all had more or less considerable hemorrhage, the uterus remaining soft and large, showing no disposition to contract.

Puerperal affections exhibit themselves under two principal forms, viz, with hyperinosis of the blood, and with primary dissolution of that fluid. The latter form was only observed in any considerable degree in two cases, which were very acute—both fatal. It is remarkable that the most acute of all the cases, in which death occurred within twenty hours after delivery, was seized in April, when the epidemic was declining. The cases connected with a hyperinotic state of the blood were less rapid. The first appearances of disease were manifested on from the second to the fifth day, commencing either in the form of a localized endometritis or peritonitis, or of the two together. There were 28 cases of this form—7 proved fatal. In one of the 7, puerperal mania occurred.

The treatment consisted in local cataplasms, mercurial frictions, warm baths, and small doses of calomel and opium. The post-mortem appearances were a large relaxed uterus, with the cervical portion softened, and its inner surface lined with diphtheritic or gangrenous deposit; fibro-purulent exudations in the abdominal cavity; enlarged spleen; and a dark, fluid blood in all the veins, the heart, and the cerebral sinuses, exhibiting, hence, the signs of a dissolved condition of the blood, the result of the continuation of the diseased process.

In the milder cases cataplasms only were employed, and phosphoric acid given with the beverages; local bleeding, and especially warm baths, being resorted to only when the local pain proved excessive. In the majority, ten to twelve days sufficed for the treatment. There were also cases of febrile action without special local manifestation, and others in which, with a moderately rapid pulse, more or less prostration and malaise, there was an abnormal enlargement of the abdomen without pain on pressure. The involution of the uterus was performed with remarkable slowness. All these cases recovered.

One remarkable fact is, that in certain cases of labor, during the height of the epidemic, where, on account of difficulty and delay or exhaustion, the worst prognosis was given, no ill effects resulted. In fact, during such an epidemic, individuals not predisposed to puerperal disease, may undergo most terrible labors without being attacked, while others, with a normal labor, fall victims to the disease.

The influence extended to the fœtus and child; all who were born dead, or died soon, exhibited a diseased condition of the blood, of which they had become the subject while *in utero.* The blood was dark and fluid, the spleen enlarged, and the umbilical arteries often contained pus.

No other cause could be assigned for the epidemic than the prevalence of certain atmospheric influences. Miasmatic influences could not have been generated within the walls of an establishment so newly built and well contrived, and not overcrowded. Moreover, puerperal diseases prevailed at the same time in Wurzburg and its vicinity, which were not, it is of importance to observe, treated by the physicians of this institution. To this may be added the greater prevalence of hemorrhages, and the greater mortality from puerperal diseases at this time. An influence which has often proved very mischievous in lying-in-hospitals during epidemics, viz., the presence of numerous male individuals, did not come into operation here. Individuality, too, exerted no influence; for the feeble and strong were alike attacked. In fact, the fatal cases occurred among the most strong and powerful women, while the feeble suffered comparatively little.—*N. Amer. Med.-Chir. Review.*

A Case of Leucocythæmia.

BY DR. GEORGE SHEARER,

Resident Physician, Royal Infirmary, Edinburgh.

(Edin. Med. Journal, July, 1860, p. 68.)

A YOUNG man, aged twenty-four, a miller by trade, admitted to the infirmary under the care of Dr. Gairdner, affords an interesting illustration of leucocythæmia. Three weeks elapsed from his admission to the time of his death, and "the following is a summary of the facts of the case in regular sequence: Anæmia, languor, and debility; epistaxis; headache; bleeding from the gums; renal pain, with lithiasis; febrile symptoms; disappearance of lithic acid, and appearance of lithates and albumen; diarrhœa; reappearance of lithic acid; uncontrollable epistaxis; hæmatemesis; otitis; exhaustion and death."

The crystalline deposit in the urine, on the third or fourth day after admission, consisted mainly of hexagonal crystals of lithic acid, with a few of the ordinary rhomboidal crystals. These, we have already said, afterward disappeared. Post-mortem examination revealed leucocythæmia, enlarged spleen, fatty liver, petechiæ on the mucous membrane of stomach and on the serous surfaces of the pericardium and endocardium.

The case detailed by Dr. Shearer gives him a field for reflection, which he discusses in the following suggestions:—

1. Enlargement and activity of the spleen is not the only condition involving increase of the white corpuscles, there being at present a case in the infirmary in which this condition of the blood coexists with enlargement of the whole lymphatic system of glands, without any detectable enlargement of the splenic organ.

2. The fact of a great excess of white corpuscles in the blood in cases of leucocythæmia being accompanied by constant diminution of the red discs, appears to militate against the theory put forward by Wharton Jones, and supported by Bennett and others, that the latter are derived from the former by liberation of their included nuclei; for, according to their theory, increased activity in the formation of the white ought, *pari passu*, to be attended by increased development of red discs, while the reverse is the case. Comparative increase of the white corpuscles is seen in a variety of organic diseases, especially chest affections; but it also occurs in dysentery, diarrhœa, paraplegia, ect; in all of which one general condition was observed, viz., depreciation of the appetite, and emaciation. These facts, Dr. Shearer thinks, point to the blood itself as the primary source of origin of the red discs, and in the diseases mentioned there is either a deficiency of nutritive pabulum taken into the blood for the production of the red corpuscles, or these are rapidly melted down to supply the elements of the discharge. In leucocythæmia, again, the nutritive pabulum is appropriated for the formation of the white corpuscles, the blood being thereby impoverished to the extent to which these are increased; development of the red discs is consequently kept in abeyance, and anæmia is again the result.

3. The deficiency of color in the urine and the salts obtained from it depends probably upon the same cause as the pallor of the general surface, viz., deficiency of red globules and hæmatin in the blood.

4. Careful study of the deposit of lithic acid seemed to warrant the inference that the common or lozenge-shaped crystal is derived from the perfect hexagonal form by shortening of the lateral planes of the latter; but this does not explain the formation of the true rhombic crystal, which is an irregular form.

5. Hemorrhage from various mucous surfaces forms a prominent feature of this disease, and may depend partly upon the increased tension maintained in vessels by the absolute increase of volume in the mass of the blood, and partly upon the imperfect nutrition of the walls of the capillaries from the inferior quality of the blood for histogenetic purposes.

6. The white corpuscles, we know, are closely allied to fibrin in composition and character, fibrin is increased in febrile and inflammatory diseases, and accompanying this is an increased elimination of lithic acid, or lithates, by the kidneys. Can any relation exist between the lithuria present in this case, and the increase of white corpuscles in the blood?—*North American Med.-Chir. Review.*

PERFORATING ULCER OF THE STOMACH IN A GIRL.—Mr. Buzzard related the case, which was one of sudden death, requiring a coroner's inquest, the cause of which was discovered at the autopsy to be a small perforating ulcer. The symptoms had been very slight during life. A meal, causing considerable distension, had been taken an hour before. The girl was only nine years of age.—*London Lancet.*

HORNS FROM THE HUMAN SUBJECT.—One of them was removed recently by Mr. Cock, and was the product of twenty-five years' growth. Mr. Durham also produced several interesting specimens of similar growths from the museum of Guy's Hospital, and illustrated the subject at some length.—*Ib.*

New Osteoplastic Operation upon the Nose.

BY PROFESSOR B. LANGENBECK.

(Echo Medical, No. 7, 1860; Gazette Hebdomadaire, No. 40, 1860.)

FROM a paper on osteoplastic operations, by Professor Langenbeck, published in the *Deutsche Klinik*, No. 48, 1859, we extracted the details of an operation devised by the distinguished Berlin surgeon, for the removal of polyps affecting the nose and pharynx, (see this Journal, p. 702, 1860,) in which it was shown that a portion of bone when separated from its osseous connections could unite, provided it remained adherent by periosteum to the parent bone. In the same communication the author adverted to a case in which he had transplanted the pericranium upon the back of the nose, in order to replace the nasal bones, but in regard to the success of the attempt he entertained serious doubts. Dr. Dor has, however, followed up the case, the history of the first report having been incomplete, and has shown that the fears of Dr. Langenbeck were useless. The result of the operation being interesting, we give an abstract of the case at the present time.

A woman, forty years of age, had suffered for two years with ozæna and perforation of the palate, and complete destruction of the nasal bones and septum. The nose was in consequence sunken in, and the soft parts, which were healthy, were drawn up toward the forehead. The patient denied most positively that she had ever been affected with syphilis, although the disease could be traced to that source. At the time she had a purulent discharge from the mucous membrane of the pharynx, which yielded in four weeks to the iodide of potassium.

The operation was performed on the 17th of November, 1859, by penetrating the cavity of the nose, by an incision made from one wing to the other, thus separating the soft parts from the nasal apophysis, the frontal and superior maxillary bones. The point of the nose was then brought down toward the lip and the semilunar space thus made was filled up by a flap of a similar shape, removed from the forehead. The flap was composed not only of the skin, but also contained the periosteum, and the pedicle was attached near the internal angle of the right eye. The only difference between this and other rhinoplastic operations consisted in including in the flap of skin a portion of periosteum to an extent corresponding with the size of the lost bones. The after-dressing was confined to covering the wound with charpie, and introducing the same substance into the nose, which was, moreover, covered with a compress wet with cold water. On the fifth day the swelling was greater than is usual after such operations, and the wound had almost entirely united by the first intention. On the second of December, when Dr. Dor again saw the patient, the swelling had nearly disappeared, aud the color of the skin was normal. There were at this time no signs of exfoliation of the denuded bone. On the sixth of February the bridge of the nose was perfectly firm, and the introduction of a sound into the nasal cavity gave the sensation of true bone. The internal surface was smooth and resistant, and the formation of new bone between the skin and periosteum appeared to have taken place. The cutaneous flap, which was at first excessively tumefied, had returned to its normal dimensions, and, under the microscope, osseous tissue, which did not differ from true bone, was observed. Granulations readily formed on the denuded portion of the frontal bone, a very small portion of which exfoliated.—*N. Amer. Medico-Chir. Review.*

Tannin an Antidote to Strychnine.

BY PROF. KURZAK, OF VIENNA.

(Zeitschrift der K. K. Gesellschaft der Aerzte zu Wien, March 12, 1860.)

FROM want of a reliable antidote, the treatment in cases of poisoning by strychnine hitherto consisted principally in endeavoring to evacuate the poison, to combat the frightful spasmodic symptoms by narcotics, and to re-establish respiration, when it finally ceased by artificial means. Donne proposed iodine, chlorine, and bromine as antidotes to strychnine; Garrod, Rand, Morson, and Falck recommended prepared animal charcoal; but the efficacy of these substances has been neither tested sufficiently by experiment nor proved by experience. The same is true in regard to tannin, and the astringent vegetables containing it, their infusions, decoctions, &c. Although they recommended themselves by the fact that tannin forms chemical compounds, insoluble in water, with strychnine and other poisonous alkaloids, it seemed very probable that these products might be redissolved in the stomach and intestines, and thus be rendered capable of absorption; the virtue of tannin as an antidote to strychnine was, therefore, considered very doubtful.

With a view to subject this matter to a thorough examination, and to ascertain the efficacy of tannin in preventing and allaying the symptoms of poisoning by strychnine, Professor Kurzak made a series of experiments on rabbits and dogs. At the end of his interesting and highly important memoir, he states that the results of his investigation permit him to draw the following conclusions:—

1. *Tannin*, if administered in time, is an excellent *chemical antidote to strychnine.*

2. The doubt, whether the precipitate formed by tannin in a solution of strychnine, although insoluble in water, would not be redissolved by the gastric and intestinal juice, and the strychnine thus reobtain its poisonous properties, is solved by these experiments on rabbits and dogs in a complete and highly gratifying manner.

3. The successful results in dogs and rabbits justify the expectation that *tannin would suspend the poisonous action of strychnine also in man*, even in cases where the evacuation of the tannate of strychnine, formed in the stomach could not be accomplished.

4. These experiments show that *twenty to twenty-five times the quantity of tannin is required in order to suspend the poisonous action of strychnine.* In cases of poisoning it will be, however, advisable to administer a relatively larger proportion, as a part of the antidote will be absorbed by the usual contents of the stomach, particularly by gelatine.

5. As tannin has proved to be an antidote to nitrate of strychnia, which is much more soluble in water, there is so much greater reason to hope that it will be successful in poisoning by pure strychnia which dissolves in water with great difficulty.

6. *The same successful result* is to be expected from its administration in poisoning by the hard and tough *nux vomica*, which imparts the poison to aqueous fluids, but gradually and not very rapidly.

7. Tannin is a so much more valuable antidote in poisoning by strychnine, as *galls* in which it is contained can be readily procured, and thus be administered without much loss of time. They are easily reduced to a pow-

der, which is given mixed with water. Another advantage is obtained by the vomiting which it is liable to produce. In the mean time, an *infusion* or *decoction* of powdered galls may be prepared.

On an average, Turkish galls contain fifty, the Illyrian galls twenty per cent. of tannin. At least one drachm of the former and two drachms and a half of the lat er are therefore required to neutralize one grain of strychnine introduced into the stomach, but in general, especially if there is vomiting, a much larger quantity should be administered.

8. Another readily obtained substance containing tannin is *Chinese tea*, the efficacy of which, in poisoning by strychnine, is confirmed by our experiments. But these experiments (VII and VIII,) have also shown that, in a decoction of tea-leaves, we cannot count upon the whole amount of tannin contained in them. In poisoning by a larger dose, it would therefore be necessary to administer so large an amount of green tea that the antidote itself might produce poisonous effects. One decigramme (1.3 grain) of nitrate of strychnine requires, as our experiments prove, ten drachms (600 grains, 40 teaspoonfuls) of green tea, which, according to Peligot's analysis, contain about fifteen grains of caffein. Tea is therefore applicable only in poisoning by smaller doses, but may otherwise be useful as adjuvant.

8. The efficacy of *roasted coffee* as chemical antidote to strychnine seemed to be much inferior. The amount of *caffeo-tannic acid* contained in coffee is, according to Payen, 3.5 to 5.0 per cent. But our experiments (IX, P, XI,) show that the decoction evidently contains a much smaller quantity of undecomposed tannic acid than this per-centage would justify us in assuming. The decoction of 180 grains of roasted Cuba coffee (being adequate to 200 grains of the raw coffee, which should contain at least six grains of tannic acid) produced, according to the ninth experiment, merely a delay and diminuation of the poisonous effect of 0.13 grain of nitrate of strychnine. In the tenth and eleventh experiments, 300 grains of raw coffee, which weighed, after roasting, 267 and 264 grains, and should have contained at least nine grains of tannic acid, had furnished a decoction which, as antidote to 0.13 grain of strychnine, was nearly inert, only delaying the appearance of the symptoms for a little while.

10. From *unroasted coffee*, so inconsiderable an amount of tannin is extracted, by boiling, that the employment of its decoction for our purposes is out of the question.

11. *Oak bark* (of Quercus robur and Q. pedunculata) contains, according to Gerber, 8.5 per cent. of tannic acid, and imparts it readily to aqueous fluids. It deserves attention in poisoning by strychnine so much the more, as it can be procured without much delay, especially in the country. What has been said about the administration of galls equally applies to the use of the powder and decoction of this bark.

12. On account of their frequent occurrence and the large amount of tannin they contain, we have to men'ion in this connection: *acorns* (from Quercus robur and Q. pedunculata) with 9 per cent., the *bark of the horse-chestnut* with 8 per cent., *willow bark* with 5 1-2 per cent., and *the green hull of walnuts*. The *radix tormentilla* (with 17 per cent.,) *rad. caryophyllata* (with 31 per cent.,) and *rad. bistortæ*, are still rich in tannin, but can rarely be procured without much loss of time.

13. The solubility of precipitate produced by tannin, in a solution of strychnine, by *acetic*, *citric*, and *tartaric acid* (vide experiments with the same,) show the necessity of avoiding vegetable acids during the treatment of poisoning by strychnine with tannic acid.

14. The same applies to the internal use of *alcohol* and *alcoholic remedies*.

15. The reported experiments with rabbits have sufficiently proved that more active voluntary movements excite the spasms usually produced by

strychnia, even when they otherwise would not have made their appearance. In treating cases of poisoning by strychnine, *it is therefore highly important to prohibit as much as possible all voluntary movements, and to avoid violent excitement of any other kind.—Journal of Materia Medica.*

Jodin on Croup.—Croup is communicated by respiration and by inoculation.

The disease has been carried into a place where it did not previously exist, by an individual going from an epidemic center, and communicating it to those who approached him, or who only inhabited the same apartment.

It has been respired by physicians who have watched at the bedside of patients (Blache fils., Valleix.)

It has been inoculated upon the lip, in the mouth, or in the nasal fossæ of the physician who cauterized the throat (M. Gendron,) or who did tracheotomy (M. Herpin de Tours,) by concretions ejected by a convulsive cough, in the first instance from the throat, and in the second from the opening made in the trachea.

It has also been inoculated on the foot where excoriated by chilblain, and by contact with a portion of expectoration from a patient.

There are physicians who do not admit the contagion of croup. They object that the instances of inoculation belong to angina, and not to croup, which is a different disease. But the inoculation, above stated, produced by laryngo-tracheal false membrane, overthrows this objection. It is urged, too, that attempts made to inoculate animals with croup have failed. The same objection might be brought against diseases generally reputed contagious, as small-pox and itch. Contagion alone is not enough to produce the disease; there must exist, also, susceptibility in the subject. A principle contagious in man is not necessarily so in animals. Besides, the same subject may be apt to contract it at one time, and become refractory to it at another, and *vice versa:*

If contagion of croup be denied in the sense of Fracastor—that is, having power to reproduce the germ from which it originated—there is one point on which all are agreed, that is, contagion in the Hippocratic sense, namely, that it is produced by a principle diffused in the air.—*American Journal of the Medical Sciences.*

Thapsia Plaster.—This is a new therapeutical agent, the active principle of which is derived from the *Thapsia garganica*, an Algerian plant. It is a most energetic revulsive, the effects of which can be graduated by the duration of its application, replacing blisters in serious affections, and rubefacients in the milder ones. It induces an erythema, which is speedily followed by an abundant and salutary miliary eruption. Its action is rapid, more certain than that of croton oil, and its employment is exempt from the numerous inconveniences attributed to some other external agents. It may be employed in any cases in which revulsion is indicated, but it is especially useful in diseases of the chest, rheumatism, and arthritis; it is also serviceable in the affections of children.—*Med. Times and Gazette,* Nov. 17, from *Gazette des Hop*, No. 60.

Letters from Paris.

Expulsive Gengivitis—Ethereal Instillations—Epilepsy in the Offspring—Comparative estimate of Anesthetics—Ecraseur—The Heart Sounds—Woorara and Strychnine.

In a recent communication to the Academy of Medicine, M. Marchal de Calvi dwelt upon a not uncommon disease of the gums and alveola. This disease, hitherto unnamed, he proposes to call "expulsive gengivitis," and as a suggestion of treatment, based upon a series of successful cases, is appended to the essay, I deem it worth mentioning. The affection consists in an inflammation of the gum and of the tooth-socket or its lining, mostly commencing by an abscess, with a subsequent slow inflammatory process. The tooth begins to emerge from its position in the jaw, deviating from the natural direction; the gum recedes, and if the malady be unchecked, the former is completely ejected from its legitimate lodging. The disease is mentioned by English authors, but seems to be, if not unknown, at all events *unnamed* in France, and constitutes the torment and bugbear of many a coquettish middle-aged lady. M. Marchal de Calvi enumerates as the causes of this unsightly affection,—first, hereditary predisposition; next, exposure to damp and cold, the neglect of cleanliness, and the presence of tartar round the gum, dyspepsia or gastric irritation; and lastly, pregnancy and lactation. The remedy found most successful in cutting short the disease in its early stage, is a *watery* solution of iodine, to be brushed twice daily over the gum; the solution at first to be used weak, and subsequently stronger and stronger, until a concentrated form is tolerated.

The excellent report read by M. Meniere, Physician to the Deaf and Dumb Asylum in Paris, at a late meeting of the Academy, has completely set at rest the question of the efficacy or inefficiency of ethereal instillations into the ear for the cure of surdo-mutity. M. Meniere availed himself of the advantages afforded by his position at the Asylum, and instituted a series of experiments with a view to the solution of what, strange to say, was, and is still in many minds, an undecided question, and came to the conclusion that sulphuric ether exerts *no action whatever* upon the auditory senses of those congenitally deaf and dumb. M. Meniere might have been entitled to carry his condemnation still further, but said that, in his character of scientific experimentalist he was bound scrupulously to respect the limits he had himself imposed upon his researches.

At the last meeting of the Academy of Sciences, M. Demeaux sent in a paper, the subject of which is most important, not only in its physiological, but also in its hygienic bearings. "From a certain number of facts, which I have collected," says M. Demeaux, "I am convinced that intoxication on the part of the male at the moment of conception becomes one of the frequent causes of epilepsy in the offspring. Out of thirty-six cases of epilepsy in my practice, I have been enabled to ascertain from the confessions of the mother that in five the fecundating process had been performed whilst the father was in a state of inebriety, and my assertions are based wholly upon the declarations of the female parents." M. Demeaux traced also to a like source two cases of congenital paraplegia and a case of idiocy. Surely such facts as these should be investigated in London, where habits of intemperance amongst the lower classes are so common, and where the conditions above dwelt upon must be frequently fulfilled.

At a late meeting of the Academy of Sciences attention was drawn by M. Lallemand to a series of experiments undertaken by M.M. Perrin and Duroy in order to obtain a comparative estimate of the effects of alcohol, carbonic acid, and the various anæsthetics, on the nervous system of animals. Three ounces of alcohol mixed with an equal quantity of water were given in three equal doses, at a quarter of an hour's interval, to a large-sized dog. After the lapse of an hour the animal was in a complete state of intoxication, the muscular system being relaxed, the skin and conjunctivæ perfectly insensible to the touch, the pulse 120, and the respirations 22 per minute. The posterior arches of the last three dorsal vertebræ were now removed, and the spinal marrow laid bare for about two inches of its length. It was then found that the anterior and posterior columns of the cord, and the anterior and posterior roots of the spinal cord, could be pricked, seized with forceps, and pinched or pulled, without eliciting any symptom of sensibility or muscular convulsion. The paralysis of the spinal nervous system was found to be complete. The animal was then let alone for four hours, and at the expiration of that period, the alcoholic lethargy having considerably subsided, the same excitatory manipulations were resumed, and the cord was found to have regained its normal susceptibility, as proved by the appearance of the physiological manifestations usually attendant upon the employment of local stimulation. In order to ascertain the physiological effects of carbonic acid, the following experiment was performed:—The same process of vivisection having been accomplished—namely, the removal of the arches of the last three dorsal vertebræ,—the animal was made to inhale a mixture of carbonic gas and watery vapor, and at the end of ten minutes became quite motionless and senseless, the arterial blood having assumed a dark venous hue. It was then found that the posterior columns of the cord and the posterior roots of the spinal nerves could be pricked, pulled, or pinched, wishout the production of any sign of sensibility on the part of the animal; but that if, on the other hand, an interior root were pricked, or the anterior column of the cord stimulated, convulsive movements were produced in the dog's hind quarters. Moreover, that if the sciatic nerve were bared by incision and irritated, the muscles to which it is distributed were immediately thrown into a state of spasmodic contraction. In other experiments oxide of carbon was substituted for carbonic acid with the same results. The deductions, drawn by these physiologists from their recent course of investigation tend to establish the fact that alcohol, chloroform, and their "kindred spirits," act primarily on the nervous centers by *their actual presence within the nerve-substance*; whereas the carbonic gases act primarily on the blood only, by the conversion of the arterial into venous blood; the difference of their modes of action being that in the first case the anæthesia is direct and primitive, and due to the immediate action of the toxical agent on the nerve matter; in the second, it is indirect and consecutive, depending on the action of the modified blood upon the nervous centers. Some weeks ago I referred in one of my letters to the grave objections which have recently been brought against the use of the ecraseur, according to the ordinary *modus operandi* of M. Chassaignac, in the extirpation of hæmorrhoidal tumors. The first surgeon in Paris who drew attention to the occasional occurrence of traumatic stricture of the rectum, as a consequeece of the use of the ecraseur, was M. Nelaton, of the Hopital de la Clinique. This practitioner, in a clinical lecture last spring, noticed this drawback to the use of M. Chassaignac's favorite instrument, and said that many of the patients who had been operated on had had reason to regret the exchange of a bearable complaint for a veritable torment. M. Chassaignac, who is not the man to abandon a cause he has once declared a good one, at once set about a modification of his original plan, and now, instead of including the whole mass of the hæmorrhoidal tumor within the loop of his instrument, and removing it as if it were a polypoid growth, he contents himself with the excision of the crown of the tumor, trusting to the subsequent inflammation and cicatricial contraction to effect the rest of the process of obliteration requisite for the accomplishment of the cure. This new method, however, does not give the patient the benefit of one of the great advantages attached to the use of the ecraseur under ordinary circumstances—namely, the perfect immunity from hæmorrhage, as proved by the occurrence at the Hopital Laribossiere of a death from the above cause after an operation for the extirpation of piles, although, as very justly observes one of the leading journals here, the *Journal of Practical Medicine and Surgery,* it has yet to be proved whether in the statistical reports of such operations, either by ecraseur or other method, fatal terminations be not occasionally observed also. M. Chassaignac's error has hitherto undoubtedly consisted in too generous an excision of healthy tissue—a proceeding which has been followed by the formation of a large and progressively contracting cicatrix. The alarm has now been pretty widely given in France at least, and operators will for the future be more economical in their dealings with the mucous membrane of the rectum. If M. Chassaignac possess any imitators in England, it will be well for them to take a timely warning.

An interesting account of some recent experiments at Alfort is given in the *Gazette des Hopitaux* of this week. Their author, M. Chauveau, was anxious to repeat before Dr. Corrigan, of Dublin, certain demonstrations on the living animal, which he performed two months ago for the first time in presence of MM. Trousseau, Bouley, and Reynal. The same journal records that Dr. Corrigan subsequently expressed himself as converted to the theory of M. Chauveau.

The object of these experiments was to prove that both the normal and abnormal sounds of the heart are entirely due to the normal and abnormal action of the auriculo-ventricular and sigmoid valves, and that the contraction of the auricles is so feeble that it is impossible to suppose them as in any way connected with the production of the heart sounds. A horse having been thrown, and then pithed to render it motionless, the nozzle of a pair of bellows was introduced into its trachea, and artificial respiration kept up, the heart meanwhile continuing to beat with force and regularity. An extensive opening was made in the chest immediately behind the left shoulder, and precautions were adopted in order to prevent the blood from flowing into the thoracic cavity. By this means, the pericardium being also laid open, a full view was obtained of the left ventricle and auricle, and also of the pulmonary artery. "It was now easy to see," says the report, "that the contraction of the auricle was very feeble, whereas that of the ventricle was most powerful and energetic, and accompanied moreover by a shortening in the direction of its length, the superficial fibres running from its points to its base puckering up into folds, the organ itself becoming hard under the finger at each systole, and assuming an almost globular form, the lateral prominence of the outer wall of the ventricle making it easy to comprehend how the thoracic throb is effected.

The stethoscope, applied over the ventricle, reveals the existence of two sounds; a first, dull and long, corresponding with the ventricular systole; a second, sharper and shorter, coincident with its diastole. In order now to prove that both of the two sounds are due to the shock and vibration, resulting from the sudden valvular expansion, if at the moment when the second sound is produced you pinch gently with the finger and thumb the root of the pulmonary artery, exactly at the place of its insertion into the ventricle, you feel between your fingers a remarkable thrill or vibration. If the stethoscope be applied over the same spot, a clear, sharp, and short sound is heard, its production being synchronous with the thrill previously felt by the observer's fingers. This shrill, or short, harp sound, is produced by the action of the sigmoid valves, which are consequently (according to M. Chauveau) the undoubted source of the second sound. With regard to the mode of production of the first sound, if you apply a stethoscope over the heart during the systole of the ventricle, a long, dull sound is heard, which M. Chauveau attributes to the expansion of the auriculo-ventricular valves, and the same sort of vibratory thrill can also be felt if the finger be applied on the surface of the heart. The violence and duration of the valvular expansion are more appreciable when a finger is introduced through an incision made into the auriculo-ventricular orifice. The finger is then, during the continuance of the first sound, gripped by the free edges of the opening valves, and whilst the finger is engaged in this aperture, the first sound is either entirely absent or considerably weaker, owing to the diminution of the valvular vibration. By introducing a small metallic tube into the same opening, and so allowing of the regurgitation of a certain amount of blood, M. Chauveau produces a perfect bellows-sound; the same result being also produced by cutting off part of a valve, or removing one or more of its tendons. Also, by pinching, during the ventricular systole, the root of the pulmonary artery, so as to narrow its calibre, a systolic bellows-sound can be artificially imitated. The pathological conclusions drawn by M. Chauveau from his experiments are, that the systolic bellows-sound is due either to arterial constriction or to auriculo-ventricular imperfection, and that the diastolic bellows-sound is the result of arterial imperfection.

I mentioned in a former letter that Professor Vella, guided by the experimental researches of M. Claude Bernard, had completed a course of investigations in order to test the alleged antagonistic powers of woorara and strychnine, and that his investigations had considerably strengthened the belief, already prevalent, that the two agents stand in relation to one another as poison and antidote. It would now appear that M. Thiercelin has advanced a s ep fur her, and, struck by the counteraction of the artificially produced convulsions by woorara, has been led to administer the drug in the treatment of several convulsive diseases, more especially epilepsy, and with most marked effect. Particulars of two cases of epilepsy, which had resisted a variety of previous treatment, were laid before the members of the Academy of Sciences at their last sitting. One of the subjects treated by woorara was a young man, aged twen y-three. In him the disease was hereditary and congenital. The patient had passed four years at Charenton, and was accounted incurable. The number of attacks during the month amounted to twenty, whereof the greater part were most severe. The second case was that of a girl of seventeen, a sufferer from epilepsy for eight years past, and during the last twelvemonth subject to daily fits. Under the influence of the woorara treatmeat (the drug being applied daily in doses varying from half a grain to a grain to the suppurating surface of a blister) the attacks diminished in frequency, so considerably that in the first case they fell in number from twenty to five per month, and in the second from twenty-nine or thirty to eight. Not only did the frequency of the fits decrease, but a striking general improvement occurred in the health of both patients, and a marked diminution of the nervous irritability always accompanying epilepsy was also noticed. Unfor unately, the treatment could only be persisted in eight weeks, as the stock of woorara ran short; nevertheless, the results obtained were decidedly of a nature to encourage other practitioners in following the footsteps of M. Thiercelin.—*London Lancet*, Jan., 1861.

SPINA BIFIDA TREATED BY INJECTIONS OF IODINE.—Dr. Emil Fischer reports (*North American Medico-Chirurgical Review*, Nov. 1860,) two cases of spina bifida treated by injections of iodine, by Prof. Gross, at the surgical clinic of the Jefferson College. Both terminated fatally.

A Contribution to the Chemistry of the Supra-renal Capsules.

BY DR. SELIGSOHN.

(Virchow's Archiv, Band xviii., 3 and 4 Heft, p. 355, and A. Med. Monthly, Oct., 1860.)

THE following experiments were undertaken in the Laboratory of the Pathological Institute, at Berlin, with a view to establish the discovery by Vulpian and Cloez (*Comptes Rendus*, September, 1857, p. 340,) of taurochloric and hippuric acids in the supra-renal capsules. The method pointed out by these observers was adopted in my investigations.

A pound of the supra-renal capsules of the ox having been carefully cleaned and comminuted, was macerated for several days with diluted alcohol, after which the alcoholic solution was filtered and evaporated. The addition of water to the completely evaporated mass caused the separation of fatty matters. The watery solution was evaporated to the consistence of a syrup, and absolute alcohol was added. The residuum thus obtained was dissolved in water to be tested for leucin; the precipitate produced in the red-colored solution, by the addition of basic acetate of lead, was separated by filtration, and the excess of lead in the filtrate was removed by sulphuretted hydrogen. In the fluid freed by filtration from sulphuret of lead, and evaporated to the consistence of a syrup, only cubic crystals (NaC) were observed on microscopic examination, but no leucin was discovered. The alcoholic solution filtered from the supposed residuum of leucin was evaporated to the consistence of a thick, brown syrup, which, when dissolved in water, manifested an acid reaction. This solution, mixed with an excess of hydrated oxide of lead, (to the removal of the acid reaction,) was anew evaporated to dryness; the dry mass was then boiled with 65 per cent. of alcohol. From the warm filtered alcoholic solution, which was of a dark-brown color, the excess of lead was removed by means of sulphuretted hydrogen; from the yellow fluid separated by filtration from the sulphuret of lead, crystals were deposited after long repose in the cold, which exhibited the following behavior toward reagents. They dissolved readily in ether, and, on evaporation of the menstruum, separated partly in the form of fine needles, partly as scales. They dissolved with difficulty in cold water, which, however, exhibited a distinctly acid reaction. Under the microscope the crystals presented the form of fissured rhomboidal tables; some of them having been warmed in a test-glass with concentrated hydrochloric acid, the crystalline coating which formed on the sides of the glass exhibited the same form as the original crystals.

Their microscopical and chemical behavior, as well as the formation of the sublimate, put it beyond a doubt that crystals of benzoic acid had in this case separated, while the properties of the crystals obtained by Vulpian and Cloez, by a similar mode of proceeding, agree essentially with those of hippuric acid.

To the fluid separated from the crystals, an excess of powdered chalk was added, to prevent the possibility of decomposition, (on evaporation in the water bath before the addition of carbonate of lime, the fluid became turbid, while fumes of sulphuretted hydrogen at the same time escaped,) and the former was thereupon evaporated to dryness in the water bath. The dry residuum was strongly warmed with diluted alcohol, the alcoholic filtrate again evaporated, and then heated with concentrated hydrochloric acid, in order to resolve any taurochloric acid, which might have been present, into tauric and choloidinic acid—the crystalline mass thus obtained dissolved with the formation of a residuum apparently agreeing with choloidinic acid; which, however, on the application of Pettenjoker's test, did not exhibit the characteristic coloration. But in the solution the presence of sulphur was clearly demonstrated; moreover, the characteristic crystals of taurin separated on evaporating the solution in the air.

The incinerated constituents of the residuum of the supra-renal capsules obtained after maceration in alcohol, in which no uric acid was discovered, were:—

1. Constituents soluble in water:—
    Phosphate of potash.
    " " soda.
    " " lime.
2. Constituents soluble in hydrochloric acid:—
    Phosphate of iron.
    " " lime.
    " " magnesia.

With reference to the color reaction of the supra-renal capsules, I would, in conclusion, observe that after the application of very dilute hydrochloric acid to their substance, the filtered clear solution assumes a beautiful red color on the addition of ammonia in excess; after the evaporation of the excess of ammonia the solution again becomes colorless.—*North American Medico-Chirurgical Review.*

Affections of the Female Breast.

DR. W. H. BYFORD has sent us a pamphlet copy of an article on the above subject from the *Chicago Medical Examiner*. It is an elaborate discussion of all parts of the theme. Lightness of covering he shows to be indispensable to the healthy state of the nipple, and the author expresses his firm belief that the modern fashion of carrying "pads" on the breast to swell the bust is injurious, as it renders the skin of the nipple soft and tender, and thus readily liable take on inflammations, excoriations or cracks. Again, he believes that the use of stays and tight lacing do much to cause absent or imperfect nipples. Women should, particularly during pregnancy and nursing, cover the nipple extremely light; during the last two months of pregnancy a light sponge, shaped so as to cover the areola, and press on every part of the nipple, with over it but one thickness of goods, is recommended to be worn. Also after nursing the drying of the nipple thoroughly should never be neglected. When cracks, in spite of such and other precautions, do occur, much may be done for their relief by the use of shields. But when they are deep, a quick cure must be attempted, and the following method is recommended: "Press the nipple in such a way as to close the crack, and while thus holding it, apply a thick layer of collodion over the surface. We should apply the layer thickly, and have it extended some distance in every direction, so that it will keep the crack together. The collodion is not easily sucked off by the child, and if the nipple should be used it need not be disturbed at all until completely healed. We should watch the coat of collodion, and renew it when it seems to be becoming deficient by violence of nursing." In excoriations he employs kino, sulphate of zinc, and other washes, combined with gum arabic, glycerine, etc., and in chronic cases resorts to nitrate of silver. In inflammation of the breast he says "the proper thing for drawing the milk is the mouth." In suppuration he conceives it proper to let out the matter as soon as possible, so as to prevent it burrowing among the soft parts, and by its presence causing irritative fever. The whole paper is a complete and admirable one, and demands attention.—*Nashville Journal of Medicine and Surgery.*

On the Influence of Syphilis and its Mercurial Treatment upon Offspring.

BY PROF. FAYE, &c., &c.

PROF. Faye, of Christiania, has addressed a circular "to the physicians of all countries," in which he recommends attention to the following points:

How many children of syphilitic parents, treated with mercury, are born and remain healthy? how many die, or are successfully treated? Also, in how far is the assertion correct that a mother, who has borne syphilitic children, is subjected, when again pregnant, with the most happy effect upon the health of the child, to mercurial treatment?

Dr. F. urgently requests the brethren throughout the whole world, especially those engaged in private practice, to report their observations on these points. As soon as these are published, or sent to him direct, he will prepare and return the results.

Prof. Hebra publishes Faye's circular in the *Wiener Med. Vrochenschrift*, (11, 12, 1860,) and shows the benefits to science and humanity that will accrue from general compliance with Faye's wishes. After more definitely stating the questions, he relates ten cases from private practice, in partial answer, from which cases he draws the following conclusions:

(1.) Secondary syphilis may be transferred per coitum upon the female without local affection on the genital organs of the male; and, therefore, still more easily when the remains of syphilis are present on the skin or mucous membrane.

(2) Syphilis may be latent in the system; it may not be discoverable from any symptom, only be revealed by the syphilitic condition of the offspring.

(3) On the contrary, also, syphilis may manifestly exist in the father, and yet (*a*) not be transferred upon the mother, nor upon the offspring; (*b*) even if transferred upon the mother, the child may be perfectly healthy: or (*c*) if even the first children are affected, healthy ones may be born afterwards.

(4.) While the usual treatment with mercurials does not insure against either recurrence in the same person or transmission upon offspring, there is no other method of treatment that does; and it must be at present admitted that syphilis can be cured in parents and children, with more certainty and safety with mercury than in any other way.

In presenting Prof. Faye's request to the profession of this country, we earnestly call upon them to report through the various journals all that has any bearing on the subject, as we have stated it in the heading of this article: whether both or only one, and which one, of the parents is syphilitic; the treatment employed in the cases of the parents and of the children; the cases, as far as ascertainable, of healthy children born from syphilitic parents, and especially mothers that underwent no treatment, should all be carefully recorded. We certainly trust that Hebra's fourth proposition may eventually be materially modified.—*Amer. Med. Monthly.*

INDIAN HEMP IN TETANUS.—A successful case is reported in the *London Lancet*, by Mr. Farrage, in which thirty drops of the tincture were given every two hours.

The Treatment of Venereal.

BY DR. JOS. HERMANN.

ABSOLUTE exclusions of all mercurials, externally and internally; simple treatment of the primary forms; and employment of the iodide of potassium or of sodium in the cases in which chemical analysis proves the presence of mercury in the system; these are the main factors of my treatment, which, far from every secret remedy, is based on the combined experience of all physicians, down to the present day, with the unconditional exception of administering mercury.

Chancre frequently requires nothing but cleanliness and application of cold, without cautery; yet in many cases the latter is necessary to destroy the large amount of exudate, on which the induration of the chancre depends. Fungous granulations after chancre, as well as after all other forms, are touched with argent. nitrat. In some cases, rapid reparation and cure of chancre followed the sprinkling of very finely-powdered pumice-stone, starch, &c.

Buboes are treated in the beginning with cold, more frequently with tinct. iodine, sometimes vesicants, or also with compression by means of lead plates.* In many cases, when too late for resorption, Vienna paste is employed. After suppuration is established, free incisions are made with the bistouri, canals enlarged, and if the bottom and edges of the wound assume a specific appearance, they are touched with lunar caustic besides.

Broad condylomata frequently disappear after the application of cold sitz-baths; in by far the majority of cases, however, they must be destroyed by argent. nitr. Pointed excrescences are removed with the scissors. Trials with the pulv. frond. sabin. junip. remained without noticeable success. Excoriations on the lips and in the mouth heal with cleanliness and cold water; those on the anus with cold sitz-baths, or occasionally not until glycerine is applied. Ulcers in the throat heal without recourse to caustics, by frequent use of a gargle either of alum, or aqua goulardi, or of a solution of iodide of potassium.

Exanthemata often disappear upon employing the cold douche for some time; sometimes they yield better to lukewarm baths; frequently, too, rubbing in of sulphur ointment, or of sapo viridis, is necessary. The pigment spots generally yielded to washes of a concentrated decoction of frond. sabin. juniperi.

Phimosis requires, according to circumstances, division, but in most cases circumcision of the prepuce. The double object of diagnosis and rapid cure overbalances in such cases the danger of possible infection of the wound with chancre-poison.

Paraphimosis requires reposition, often with incision, often with accompanying circumcision, of the prepuce, as in phimosis.

Gonorrhœa is treated in the first stage only with cold applications and cold bathing of the part; in the second, with injections of tannin or sulphate of zinc, with addition of simple anodyne tinct.: Orchitis exclusively with ice and iodine ointment.

An ointment of sapo virid. with chlorate of soda, followed by a bath, readily destroys and removes pediculi.

Against all the forms of so called secondary and tertiary syphilis, as serpiginous cutaneous ulcerations, affection of bone, &c., iodide of potassium or of sodium is employed either in aqueous solution, or in pills, to the amount of 10 to 40 grains daily, given in two divided doses. This medication may be aided by daily sweating, for two hours or so, induced by packing in wet sheets and dry covers; according to circumstances, warm baths or cold douches may also be advisable.

The diet is but very seldom restricted to rigorous abstinence: best possible ventilation and cleanliness are never for a moment in any case neglected, and every patient is informed and warned in reference to the easy communicability of the syphilitic poison.

I am perfectly convinced that remedies may in the future be found better than those mentioned for the different forms. I am quite willing to examine any proposed improvement in treatment, and, if it can be done without disadvantage to the patient, practically to try it; but I will never employ anything that is either *a priori*, known to be injurious, or that has not a sufficient and reasonable claim for trial. Without, therefore, opposing new remedies, there are two methods at present in vogue that I shall never inflict on any patient of mine, viz.: 1, syphilization; and 2, the method of inunction recommended by Prof. Sigmund.—*Ib.*

ERRORS IN DIAGNOSIS OF CONSTITUTIONAL SYPHILIS By Dr. Fr. W. Lorinser.—Lorinser submits that when writers on syphilis described the disease, its treatment with mercury had long been practiced already, and that, therefore, the so-called specific sequences of syphilis—induration of the chancre, syphilitic skin-diseases, ulcers of the mucous membrane of nose and throat, serpiginous ulcers, pain in bones and nodes, swellings of glands and iritis—could not, under these circumstances, be scientifically pronounced to bear any positive relation to the disease. He goes on to show that it is absolutely impossible, with the present confused knowledge on the subject, to diagnose secondary syphilis with any degree of certainty, and dwells on the necessity of scientific study of the disease with the absence of even the slighest mercurialism, requiring not only the non-administration of the drug, but the certainty of the absence of mercury from the system by chemical analysis in each individual case, including, when present, its entire removal from the body previous to any observations or treatment of syphilis. —*Ib.*

ON THE MERCURIAL NATURE OF TERTIARY SYPHILIS. By Dr. Jos. Hermann.—The author regards all syphilitic affections of the bones entirely mercurial. He argues, 1. It cannot be proved that syphilis ever caused any disease of bone before the introduction of mercury; 2. There is not a single case known in which pure syphilis, *treated without mercury*, has caused osseous disease; 3. On the contrary, the whole series of so-called syphilitic diseases of the bones occur in laborers at Idria, who have never had syphilis; 4. The bone-diseases, formerly regarded as following Lues' gonorrhoica, have entirely disappeared since the mercurial treatment of gonorrhœa was given up; finally, the clinical observations made at the imperial hospital, Wieden, department for syphilis, have proved that these supposed tertiary forms of syphilis always occur only after a previous introduction into the system of mercury, whether as medicine or otherwise; that they are curable with anti-mercurial treatment only, as by iodide of potassium, which renders the excretion of mercury with the urine demonstrable; and that post-mortem chemical examinations have indubitably proved the presence of mercury in the liver, kidneys and bones of persons that died of "bone syphilis."—*Ib.*

New Experiments regarding the Origin of Cow-pox.

Edin. Med. Jour. July, 1860, from L'Union Medicale, 29th May, 1860.

The opinion of Jenner regarding the origin of vaccinia, alternately supported and contradicted by various observations, is at present, at Toulouse, being tested by new experiments, of which Dr. A. Fontan has given the following account, dated Toulouse, 24th May, 1860 :—

"A happy accident occasioned my passing through Toulouse at a time when a question of the highest importance was being submitted to experiment, I mean the question of the origin of vaccinia. The following is an abstract of the principal facts: Some weeks ago, M. Sarrans, of Rieumes, observed that several mares brought back to his establishment for the second or third time, were affected with the *grease* (*eaux-aux-jambes.*) There was a sort of epidemic of the affection, for nearly a hundred horses were found to be suffering from it. The variety of grease was the pustular form.

"One of these mares was taken to Toulouse to the veterinary school, where the learned Professor M. Lafosse soon recognized the true character of the epidemic. He inoculated with some of the matter of these pustules the teat of a cow, in the presence of his assistant and numerous pupils. Soon afterwards fine pustules made their appearance on the udder of the cow. One of the most distinguished physicians of Toulouse, Dr. Cayrel, the official vaccinator of Toulouse, vaccinated, with matter from the pustules of the cow, several infants who had never been vaccinated. Well characterized vaccine vesicles followed, presenting their pearly aspect, central depression, and rose-colored areola, increasing in size from day to day without any trace of erysipelatous inflammation.

"A second cow was vaccinated with matter from the first cow, and infants were vaccinated with the matter from the second cow: the results were equally satisfactory as in the former case. At present they have arrived at the fourth vaccination from the first cow, and at the third from the second cow. I was present at this vaccination; the vesicles were very fine. One was photographed in my presence, with a tolerably satisfactory result. The vesicle presented the most characteristic appearance of vaccinia. When pricked, no purulent matter escaped, but gradually a serous fluid oozed out in great abundance, with which several infants were vaccinated.

"The new matter is very active, and succeeded in the case of a pupil of the veterinary school, vaccinated in infancy, and in whom all attempts at re-vaccination had failed. I saw a vesicle in an infant produced by the virus of this pupil, finer and more developed than three other vesicles produced by an ordinary vaccination in the same infant. (No doubt the two vaccinations were performed simultaneously.)

"Already thirty infants have been vaccinated at Toulouse. No unpleasant symptoms have manifested themselves in any case; and in all, the result has been most satisfactory.

"Dr. Izarie, former vaccinator in Paris, considered the vesicles so good, that he had his son vaccinated this morning with virus from one of the infants.

"An official commission has been named by the Prefect to carry out these experiments. A report will be drawn up and communicated in due time."—*Nashville Journal of Medicine and Surgery.*

Croup is treated by M. Bouchut, of Paris, by removal of the tonsils. Some successful cases are reported.

Communications.

On the Identity of Scarlatina and Measles.

BY JAMES BLAKE, M.D., F.R.C.S., SACRAMENTO.

During the last few years doubts have occasionally found expression in the medical journals of Europe, as to whether the lines that separate scarlatina from measles are so plain and well marked as they are said to be in our medical text-books. It is plain that cases of these exanthemata have occasionally presented themselves, which have caused difficulties in diagnosis, and I am convinced that in no country have such cases been so frequently met with as in this State. Attempts, indeed, have been made to get over these difficulties, consistently with our retaining confidence in the dicta of our old teachers. The Germans, and some of our English brethren, have adopted a new name, *Ro-theln*, in which quietly to locate these rebellious cases. Others again have explained them by supposing that the two poisons can develop their effects in the system at the same time, although in a somewhat modified form—whilst others have thrown off the authority of the schools, and have come back to the opinion entertained by Sydenham more than a hundred and fifty years ago, viz., that measles and scarlatina are but varieties of the same disease, each being capable of being generated by the same poison. As to the first and second hypothesis, they certainly do not explain the facts I have met with in this country; there may be such a disease as Rotheln in Germany and England, but I have never met with it here. As to the co-existence of the two diseases in the system, each running a modified course, there can be no doubt but that this occasionally takes place, but it is impossible for me to explain many cases that I have seen on such a supposition. I am inclined strongly to adopt the last hypothesis, that which leads to the conclusion that measles and scarlatina, at least as seen in this State, are but modifications of the same disease, and that either of them may follow as the effects of the same poison. It is with the view, however, of calling attention to this subject that I publish these remarks, as I am convinced that many of my professional brethren in this State, must have met with anomalous cases of the disease; many, in fact, have told me that such is the case, and I have no doubt but that if the experience of the profession on this subject can but be brought out, we shall soon possess sufficient data to arrive at well founded conclusions on the subject.

The following short abstract of the history of three cases will serve to illustrate the anomalies I have so frequently met with in these diseases. I was called to visit a family about four miles from the city, in which there were three children, one 14 years old, another three, and another 19 months. The house was isolated, and the only communication that the children had with the city was, that the oldest went in to Sunday school once a week. (I would observe that cases of scarlatina were occurring in the city at the time.) Of these children the youngest had an attack with all the symptoms of genuine measles, with the exception of the rash, which more resembled that of scarlet fever. There was running from the nose and eyes, good deal of cough, with redness of the pharynx and tonsils. This was in July, when coryza is not common in our climate. The appearance of the eruption, which came out on the evening of the third day, was preceded by twenty-four hours high fever. The character of the eruption resembled more that of scarlatina than measles, for, although rather blotchy, there were no papula. It disappeared with the exception of some patches on the arms and trunk, after it had been out a few hours, coming out again, however, the next evening. With the exception of the eruption, the case ran the course of an attack of simple measles.

At the same time the oldest child was suffering from sore throat; for twenty-four hours before she had had high fever, preceded by slight chill. The tonsils were found swollen, and inflamed, but as she had been subject to attacks of tonsilitis, I considered it as one of her ordinary attacks, so little did the aspect of the other case lead me to suspect scarlatina. That evening, however, or thirty-six hours after the commencement of the symptoms, a bright scarlet rash broke out, principally on the trunk, neck, and upper extremities. It went in after a few hours. The next morning the tonsils were more swollen and covered with a grayish mucus; deglutition was difficult, pulse down to 84, and soft. The ordinary treatment was adopted, with egg and brandy, and strong broth. The case followed the ordinary course of scarlatina, the eruption, however, coming out only towards the evening; it was decidedly that of scarlatina. There was general desquamation, the skin coming off the hands and feet in flakes.

Six days after I first saw these cases, the third child was taken sick. She got up apparently well in the morning, but at breakfast complained of being sick, and that her throat hurt her. I was informed of these symptoms during the morning, and told the friends that she would probably have an attack of scarlatina, prescribing a mild aperient. The next morning I was sent for at four o'clock, and on arriving at the house found the child insensible, and it died in about half an hour after my arrival, or twenty-one hours after the first symptoms of the disease had shown themselves. I learned that soon after breakfast the child began to vomit, and that subsequently nothing was retained on its stomach. The tonsils became much swollen so that deglutition was difficult. There was great thirst, pungent heat of the skin, and great restlessness. About two hours before my arrival, an attack of convulsions had come on, after which the child remained insensible. Here are three cases occurring in an isolated house, one presenting the characteristics of measles, another those of scarlatina in its model form, and the third offering an example of the most malignant type of this last disease I have ever witnessed. I would not bring forward these cases as proving the identity of scarlatina and measles, but merely as affording a striking example of what I have met with in many analagous cases.

I am aware that objections may be urged against the above cases having their origin from one and the same poison, but as my object is more to call out the experience of others on the subject, than to write a description of these anomalous forms of disease, I shall here conclude by alluding to some of the points which render an investigation of the subject desirable. Should it be shown that diseases so well marked as measles and scarlatina formerly were, have so far changed their form as to coalesce, so to speak, or to be produced by one and the same poison, the fact would have an important bearing on the theory of the *change of type in disease*, a subject that is at present attracting so much attention in the medical world. Another interesting point is, as to whether the peculiarities of our climate have exerted any influence on these diseases. There can be no doubt but that diphtheria has shown itself here and in Europe, to a much greater extent than in the States east of the Rocky Mountains. Is this the case with these anomalous forms of scarlatina? Have they appeared here and in Europe, where the climates are in many respects analogous, and have they not been developed to the same extent in the Eastern States, owing to differences in climatic influences? Anything that can throw light on the obscure subject of the relation of atmospheric or telluric influences in the production of epidemics, cannot fail to be interesting, and I trust that some of your exchanges will call the attention of the profession east of the Rocky Mountains, to the subject.

An important practical point in connection with this subject is, as to whether an attack of either of these modified forms of scarlet fever or measles, will afford immunity from subsequent attacks of one or both of the diseases. That information on the subject is still called for. The following quotation from a memoir *on the co-existence of specific morbid poison*, by Dr. Murchison, Assistant Physician to the London Fever Hospital, will prove. The memoir is contained in the July No. for 1859, of the *British and Foreign Med.-Chir. Review*. In speaking of the disease the Germans call Rotheln, he observes, "Much difference of opinion exists as to the precise nature of this affection, and observations are still wanting in order to form an accurate decision. Partaking of the characters of both measles and scarlet fever, and occurring as it generally does, during contemporaneous epidemics of these two affections, and more particularly during the transition period when an epidemic of the one is immediately followed by an epidemic of the other—it has naturally been considered by many as a hybrid disease; and seeing that we can no longer deny the possibility of something approaching to a hybrid between any two of the exanthemata, this view is perhaps the most probable."

Editor's Table.

ON THE TREATMENT OF SPINA-BIFIDA.—In the *Gaz. des Hop., of Dec.*, 11, a lengthy and statistical paper by Dr. Viard was presented to the Chirurgical Society of Paris on the treatment of this disease. From its length we are unable to give more than an abstract of the more practical parts of the paper; to our mind it sets forth the result of treatment of well authenticated cases in a different light than that in which we are in the habit of viewing operative measures for the removal of this malady. An interesting feature in the paper of M. Viard, lies in the fact, that he is able to extend his view beyond the precincts of metropolitan France, and find that men of other lands have had consecutive successes in the radical removal of this dangerous conformation which has exceeded and excelled the operations of the finest surgical talent of *de terre la vie*.

We take the more pleasure in reading this paper of M. Viard, from the fact, that to an American surgeon he accords the greatest success in the treatment of this malady, and, although he claims for his countryman (M. Tessier) the credit of introducing the method to notice, he still manifests the desire to render to Professor Brainard, of Chicago, the full credit of having applied the principle with hitherto unrivaled success. Professor Brainard may well feel proud of this happy acknowledgement from high quarters; it must stand as a historical tribute to his sagacity and skill as a surgeon and physician. M. Viard handles his subject with a master's hand; he is well posted in all that has been done, and with the results below tabulated of the treatment of this malady, we must not despair of yet saving the lives of many more of our little patients than has fallen to our lot prior to this period. The table of results of M. Viard, together with Brainard's successes, has stripped spina-bifida of more than half its terrors.

After recounting the different methods proposed for the alleviation of the malady, or its radical cure, as in the method of acupuncture with needles proposed by Sir Astley Cooper, and the method of Prof. Velpeau, with strong iodine injections, M. Viard proceeds to discuss the merits of each in their order.

The method of puncture with needles M. Viard states, has unfortunately led us to no real advance in the successful treatment of the disease, nor ultimate improvement of the patient, also, notwithstanding the apparent sufficiencies of observations furnished by English surgeons, the method has not proved practical to follow, and the same fact holds good in regard to the numerous and varied propositions of our own confreres of the knife.

This rule will not, however, hold good as against the treatment of spina-bifida with iodine injections; for if we examine with care the great number of cases of serous effusions in closed cavities that have been radically cured by its means, we shall have ample evidence that the amount of local injury to the parts which have resulted unfavorably, has been proportional in most of those cases, to the degree of concentration of the solution. Therefore, this method of treatment for cases of this character presents a degree of precision not to be found in any or all the other methods which have heretofore been proposed.

Here it becomes necessary to form a correct appreciation of the conditions present, and to examine the particular precautions to apply in this treatment, which we derive from the anatomico-pathological features of the disease.

The tumor of spina-bifida is always a *diverticulum* of one of the rachidian membranes, although it is not always united to the elements of the cord, or the nerves emerging from the same. Fully comprehending these conditions, we shall readily perceive that the small amount of traumatic action that may be induced by the solution of iodine on the walls of the sac, may not become localized to that point, but the inflammation may extend to the immediate rachidian membranes, which, in many cases, would end in death.

Notwithstanding these dangers, no other method more safe has been proposed, or is known at present, and since the successes of Chassaignac, Velpeau, and Brainard, have been before this society, the new attempts at treatment of this malady by other means, though practiced by many, has been found unpractical, and this body have adjudged that the best results have been obtained by the iodide treatment alone. In the treatment of this accident by this measure, and which does not place a greater functional limit over the new-born child from its local effects, one of the most essential claims of its therapeutics is inocuity of the means we employ. Spina-bifida belongs to the order of lesions, and the very serious results of other operative measures heretofore employed, has finally led the surgeon to look to this as the safest and best in its results in the treatment. It is sufficient for us to know that there are other methods less inoffensive and less inefficacious. In the treatment of this disease by means of the iodine injections, two methods of procedure are practiced.

The first is that of Prof. Brainard, of Chicago, but first introduced by Prof. Tessier, (Lyons,) for the treatment of refractory peritonical dropsies. It consists in this only: in place of completely evacuating the serous contents of the abdominal cavity, the latter proposed to evacuate but a part of the serosity and replace the same by solution of iodine.

The other is the method of M. Velpeau, which consists in at once evacuating all the serosity of the tumor and immediately introducing the injection.

The method of Prof. Brainard takes into account only those facts of cases which he cites; and, if in his memoir, which we have here before us, we cannot recognize his claim to priority in this method of treatment of spina-bifida, we cannot deny that the Professor of Chicago has furnished us very complete and very detailed statements of the cases under his direction. Our colleague has presented us many new facts in regard to the method, and such as must recommend themselves to particular notice in the future treatment of this disease.

The six cases operated upon by his method and under his direction, five of which were *radical* cures, and, so far as present prospects it is the same with the last, although the final result is not yet ascertained. M. Brainard has had a wide range of success.

The number of cases treated by the method of M. Velpeau, up to the present time, amounts to ten, of which one case was unsuccessful, five were cured, and four of the children died.

Concerning the five cures just cited, we must consider this fact, that at the time the injection was used in the first case, (also No. 7,) there was but a trifling aperture with the rachidian cavity; we must also state that of the remaining four cases this complication was beyond question.

When this complication is present it is one of a serious character; all the patients treated had convulsions following the measure, and three of the four cures also had paraplegia, (No's 9, 10, 11.) In the fourth death it was found that the tumor communicated with the cavity of the column, and also with the ventricles of the cerebellum, (No. 13.)

In the last case in the table the surgeon determined and practiced the injection after inflammatory action had manifested itself; some hours afterward the patient sunk from a rachidian meningitis, (No's 14, 16.)

Now in presenting a resume of this method of treatment it is found that four cures, and four deaths, are all that our best surgeons can lay claim to under the treatment of M. Velpeau, and which it will be seen bears no comparison whatever, to that of Prof. Brainard, wherein we find the number of operations to be six, and also six cures.

TABLE OF CASES OF SPINA-BIFIDA TREATED BY IODINE INJECTIONS,

(1847-1859.)

No. of Cases.	Operator.	Date.	Sex.	Age.	Location.	Complication.	No. of Injections.	Strength.	Period of Treatment.	Accidents.	Results.
1	Brainard,	1847	Girl,	13 years,	Sacral,	None,	15	Weak,	10 months,	None,	Cure.
2	"	1849	"	8 days,	Lumbar,	Hydrocephalus,	1	"	?	"	"
3	"	1850	"	3 mo's.	"	"	3	"	1 month,	Convulsion,	"
4	"	?	Boy,	?	"	None,	Many,	"	?	Suppuration,	"
5	"	?	?	?	?	?	2	"	?	?	"
6	"	?	?	?	?	?	2	"	?	?	"
7	Du Tremblay,	1848	Boy,	14 mo's.	Lumbar,	None,	1	Strong,	1 month,	None,	"
8	Chassaignac,	1851	"	2 "	Sacral,	"	1	"	1 "	Convulsion,	"
9	Velpeau,	1851	Cirl,	4 "	Lumbo-Sacral,	"	6	"	13 "	"	"
10	Maisonneuve,	1855	Boy,	4 days,	Lumbar,	"	1	"	5 weeks,	Paraplegia,	"
11	Viard,	1856	"	2 1-2 mo.	"	Hydrocephalus,	1	"	6 months,	"	Insuccess
12	Nelaton,	1854	"	8 days,	"	None,	1	"	26 days,	None,	Death.
13	Robert,	1855	"	3 mo's.	Lumbo-Sacral,	"	1	"	?	Convulsion.	"
14	Serres (d'Alois,)	1853	Girl,	8 days,	" "	"	2	"	10 days,	"	"
15	Jobert,	?	?	1 month.	" "	"	1	"	8 "	"	"
16	Texier,	1859	Girl,	3 "	Lumbar,	"	1	"	9 hours,	"	"

[Here follow the details of a most interesting case treated by the author, by the method of Prof. Brainard. It was one of as unpromising a nature as can well be conceived.

The case was spina-bifida in the lumbo-sacral region, complicated with hydrocephalus; the tumor was large and non-pediculated. The treatment was followed by paralysis, but the tumor was obliterated, and the paralysis subsequently was spontaneously resolved. The child died three years after the operation.

Without entering into the very elaborate and very complete details of this case, we will give the operative procedure of the author.]

Everything ready, we plunged a fine trochar into the base of the tumor, and drew off about eight ounces of a clear transparent fluid, which coagulated by heat and nitric acid. To prevent the contact of the solution of iodine with the cord, a small firm tampon was applied to the aperture in the vertebral column, which was maintained firmly in its place by my confrere, Dr. Carre; we then injected into the pouch of the tumor thirty grammes (about 1 ounce 3 drachms) of the following mixture: distilled water, 40 grammes; tinc. iodine, 20 grammes; iodide potass., 20 centigrammes. This was allowed to remain in the cavity ten minutes, when it was withdrawn, and the case put under general treatment. The child recovered all its functions at the end of about eight months.

ON THE THERAPEUTICAL METHODS OF PREVENTING PITTING OF THE FACE IN CONFLUENT SMALLPOX.—In the *Dublin Journal of Medical Sciences*, are some remarks on a paper from Dr. Stokes, on the treatment of this disease. During the last five years Dr. Stokes has employed gutta percha and collodion in a considerable number of cases of confluent smallpox, for the purpose of preventing pitting of the face. In most of the cases the crust came off in large flakes or patches, composed of the dried exudations and the covering material, leaving the skin uninjured. This kind of treatment was most adapted to those presenting a more sthenic type. Dr. Stokes considers that the application of poultices over the face is the surest method of preventing disfigurement in smallpox. Their use should be commenced at the earliest period, and continued to an advanced stage of the disease. In most cases they may be applied even over the nose, so as to cover the nostrils. The plan should fulfill three important indications of treatment—namely, to exclude air, to moderate the local irritation, and to keep the parts in a permanently moist state, so as to prevent the drying and hardening of the scabs. The best poultice is formed of linseed meal, which should be spread on a soft material, such as French wadding, and covered with gutta percha paper or oiled silk. The conclusions to which Dr. Stokes arrives are the following: 1. That the chances of marking are much greater in the sthenic or inflammatory than in the asthenic or typhoid confluent smallpox. 2. That, considering the change in the character of disease observed during late years, we may explain the greater frequency of marking in former times. 3. That in the typhoid forms of the disease the treatment of the surface by an artificial covering, such as gutta percha or glycerine, will often prove satisfactory. 4. That in the more active or non-typhoid forms, the use of constant poulticing, and of every other method which will lessen local inflammation, seems to be the best mode of preventing disfigurement of the face.

MILITARY DEPARTMENTS OF CALIFORNIA AND OREGON.—Since the 15th of January, 1861, the Military Departments of California and Oregon are again merged into one, the Department of the Pacific under the command of Gen. A. S. Johnston, U. S. A.

The following is a list of the Medical Officers of the U. S. Army, now on duty in the Department of the Pacific:

NAME.	RANK.	STATION.
McCormick, Charles	Sur. and Med. Director,	San Francisco, Cal.
Barnes, Joseph K.	Surgeon,	Fort Vancouver, Oregon.
Coolidge, Richard H.	Sur. and Med. Purveyor,	Benicia Barracks.
Keeney, Charles C.	Surgeon,	Presidio of San Francisco.
Head, John F.	"	Fort Haskins, Oregon.
McParlin, Thomas A.	Assistant Surgeon,	Walla Walla, W. T.
Guild, Lafayette	" "	Humboldt, Cal.
Edgar, W. F.	" "	New San Diego, Cal.
Brown, Joseph B.	" "	Fort Townsend, W. T.
Hassan, Alexander B.	" "	" Dalles, Oregon.
Letherman, Jonathan	" "	" Tejon, Cal.
Milhau, John J.	" "	" Chuxhill, U. T.
Ridgeley, Aguila T.	" "	" Cascades, W. T.
Vollum, Edward P.	" "	" Crook, Cal.
Crowell, Nathaniel S.	" "	" Gaston, Cal.
Quinan, Pascal A.	" "	" Bragg, Cal.
Randolph, John F.	" "	" Yamhill, Oregon.
Herndon, James C.	" "	" Ter Wan, Cal.
Hammond, George	" "	" Colville, W. T.
Heges, Anthony	" "	" Chehalis, W. T.
Craig, Robert O.	" "	Camp Pickett.
Taylor, Lewis	" "	Fort Walla Walla, W. T.
Vansant, John	" "	" Steilacoom, W. T.
Mecham, Abel F.	" "	" Yuma, Cal.
Shorl, John C.	" "	" Umpqua, Oregon.

REVOKED.—The New York Medical College have revoked their diploma to John A. Dunker, of Newark, N. J. This is the right plan when Medical Institutions have been imposed upon. Georgia did the same in 1858. Had Philadelphia done so too with a notorious charlatan in 1859, we could have placed it to her credit, but in place of this a portion of the faculty of the delectable mill that did it, (and not without knowledge in our opinion,) has been elevated to a more dignified position. We mean Howard Rand.

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THE

Pacific Medical and Surgical Journal.

Selections.

A Clinical Lecture on Disease of the Heart and Epilepsy,

DELIVERED IN THE N. O. CHARITY HOSPITAL,

BY AUSTIN FLINT, M. D.,

Prof. of Clinical Medicine and Medical Pathology in the N. O. School of Medicine.

GENTLEMEN:—I shall presently introduce into the amphitheatre a patient, from one of my wards, affected with disease of the heart. I make this statement before the patient comes before you, but it is not so desirable to avoid naming the disease in his hearing as you may suppose. Patients with organic disease of the heart, as a rule, are but little moved by the announcement of the fact. They generally manifest an indifference which is in striking contrast with the intense anxiety and apprehensions incident to merely functional disorder. It is curious thus to observe different states of the mind belonging to the natural history of different affections. You are doubtless aware of the hopefulness and buoyancy of mind which characterize pulmonary tuberculosis. The mental state in organic disease of the heart does not resemble that in phthisis; the patient is not kept up by a delusive expectation of recovery, but he appears to be unconcerned on the subject of the diagnosis, showing neither surprise nor depression when he is made acquainted with it. This is the more remarkable, because patients with organic disease of the heart often have had no suspicion of the fact prior to its being ascertained. In this respect, too, the difference between cases of organic disease and functional disorder is marked. Patients affected with merely functional disorder have their attention concentrated on the heart, and are with difficulty persuaded that they have not organic disease; while patients really affected with organic disease are disposed to attribute their symptoms to an affection of some other organ; for example, the liver, or the stomach.

The case which will form the subject of this lecture is interesting and instructive, as regards several points pertaining to the previous history, the present symptoms, and the physical signs.

The first point to which I will call your attention is the occurrence of rheumatism several years before any symptoms of organic disease of the heart became developed. The patient, a carpenter, aged about thirty-two, was admitted into the hospital about a fortnight ago. He states that he had rheumatism six years ago; that nearly all the joints were successively affected, and that he was confined to the bed for six months. The rheumatism must have been severe, and its duration was unusually long. He does not recollect that at that time he had any pain in the chest. In a large majority of the cases of disease of the heart, involving valvular lesions, we find, as in this instance, that the patient, at some period more or less remote, has had articular rheumatism. And it is fair to attribute the heart disease in these cases to an endocarditis developed in connection with the rheumatism. Sometimes the patient is aware that there was some trouble in the chest at the time of the rheumatism, but, oftener, he cannot recollect the existence of any thoracic symptoms. The endocarditis is often completely latent as regards symptoms, and, in fact, very rarely gives rise to symtomatic phenomena distinctly referable to the heart. Hence, we can understand why the frequent occurrence of endocarditis in connection with acute rheumatism has only been recently known. Its occurrence cannot be ascertained except by means of physical signs, and these have been made available only within a few years.

The patient states that about six months ago he began to notice a deficiency of breath on exercise. This has progressively increased, but it did not occasion sufficient inconvenience to oblige him to quit work until a few days before he entered the hospital. Such is the account which patients, especially of the so-called laboring classes, frequently give when they first come to a hospital or a physician with disease of the heart. The first symptom is want of breath. This is at first slight, and they do not give to it much attention. It gradually increases, and labor involving muscular exertion becomes difficult. Finally they find themselves unable to work longer, and then they seek for medical relief. Palpitation is sometimes complained of, but this symptom is often wanting, as in the present case. Our patient has not suspected that the heart is at fault. Naturally enough he has inferred from the want of breath on exercise, that there is something wrong in the breathing apparatus, and he says he thought he was falling into a consumption.

I now introduce the patient. He is up and dressed, and able to walk about without difficulty. He disclaims, indeed, being sick, and says he only lacks wind to enable him to work. When he is quiet or exercises moderately, there is no trouble in breathing whatever. The respirations are not accelerated nor labored. As you perceive, he is not emaciated, and does not present a notably morbid aspect. His appetite is excellent, and the bowels are regular. He has a slight cough, with a small expectoration. But if you examine the countenance closely, you will observe certain appearances which are significant. The prolabia are distinctly livid. The mucous membrane within the mouth is of a dark red color, and the face generally has a dusky hue. There is also slight tumidity around the eyes. What occasions this discoloration? It is due either to deficient oxygenation of the blood, or to congestion of the systemic venous capillaries, or to both these conditions combined. If caused by the first of these conditions, viz.: deficient oxygenation of the blood, should we not have associated with it dyspnœa, or suffering from the want of more oxygen? Not necessarily. It is a curious fact that the system is sometimes remarkably tolerant of blood deficient in oxygen. This is more likely to be the case when the condition has been very gradually brought about, as it has been in this instance. But there is reason to think, as will presently appear, that the lividity in this case is due in a great measure, if not chiefly, to the stasis of blood in the veins. If so, the condition is that which is supposed to give rise to the lividity in certain congenital molformations of the heart, constituting the blue disease or cyanosis.

Directing attention now to the lower extremities, the body generally, and the cavities of the abdomen and chest, we find that the patient is affected, in a moderate degree, with general dropsy. The feet and ankles, as you see, are somewhat swelled, and pit on pressure. Exposing the belly, you notice a deep indentation caused by the waistband of his pantaloons. This shows œdema of the abdominal walls. Making pressure over the sternum with the finger, the pitting distinctive of œdema is here apparent. The peritoneal sac contains some liquid. I make percussion as the patient stands, and I find dullness extending from the pubis to the umbilicus, and tympanitic resonance due to gas in the intestines above a horizontal line drawn through the umbilicus. Causing the patient to lie down on the back, I find the dullness below the umbilicus has disappeared, and the tympanitic resonance extends quite to the pubis. This shows the presence of liquid, which changes its level with the change of position. It is more reliable evidence of dropsical effusion into the peritoneum than a sense of fluctuation; and the latter in this case is not very available, owing to the œdematous state of the abdominal walls. By precisely the same method of examination, we have evidence of a moderate amount of effusion into the pleural cavities. Percussing from above downward when the body is in a vertical position, we have the pulmonary resonance extending a little below the nipple; then percussing when the patient is recumbent, on the back, the pulmonary resonance is found to extend nearly to the bottom of the chest. This shows the presence of liquid, which obeys the laws of gravitation in this situation as it does in the abdominal cavity.

We have already obtained certain facts which point significantly to cardiac disease. Lividity and general dropsy constitute grounds for strong suspicions as to the seat of the disease, but they are not adequate to a positive diagnosis. We must interrogate the central organ of the circulation by means of auscultation, percussion and palpitation. I seek first for the apex-beat of the heart. I find it with difficulty, the impulse is so extremely feeble. It is in the sixth intercostal space, about half an inch without the nipple. It is therefore lowered and carried to the left of its normal situation. I apply the stethescope over the apex, and I discover a very distinct and rather rough murmur, which just precedes the first or systolic sound of the heart. This murmur ends abruptly and completely when the first or systolic sound occurs. There is no murmur accompanying or following the first sound. The only murmur heard in this situation is the pre-systolic murmur. This murmur is heard only within a circumscribed space over and within the apex. It is not heard without the apex. This is a mitral direct murmur; so called because it is produced by the direct current of blood through the mitral orifice from the auricle to the ventricle. It is rather a rare murmur, but not so rare as some writers have stated. The reason why it is considered to occur so seldom is, I believe, that it is often confounded with the mitral regurgitant murmur — a murmur due to the current of blood from the ventricle to the auricle — a regurgitant current. Now, what does this mitral direct murmur signify? It denotes a lesion of some kind seated at the mitral orifice, and generally a lesion which involves obstruction at this orifice. The murmur, in this case, has a peculiar quality. It resembles the blubbering sound produced when air is expelled through the mouth, the lips being passively thrown into vibration. Hence, I have been accustomed to style the murmur a blubbering murmur. I suspect that it is due to union of the two curtains of the mitral valve at their sides, leaving a contracted button-hole aperture —a kind of lesion which we know occurs not unfrequently.

Is this the only murmur in the case? On careful auscultation I discover a second murmur near the left margin of the sternum, between the third and fourth ribs. It is a feeble, soft murmur which accompanies the second or diastolic sound of the heart. This is an aortic regurgitant murmur. It shows some insufficiency of the aortic valve, and consequent regurgitation from the aorta into the ventricle after the contraction of the latter, when the recoil of the arterial coats takes place, giving rise to the second sound of the heart.

Listening now to the sounds of the heart, I find the first or systolic sound over the apex, distinct, but short and valvular, like the second sound; the element of impulsion is wanting. The second sound at the base on the left side of the sternum is notably more intense than on the right side; showing either the sound due to the pulmonic valve to be increased, or that due to the aortic valve to be weakened, or that both these alterations exist — the latter being probably the true explanation in this case. These are nice points in auscultation, but some of you, as I know, are already familiar with them, and to others, although at present obscure, they will be sufficiently intelligible by and by.

Let me now practice percussion in the præcordia. Percussing on a horizontal line from the sternum, in the direction of the left nipple, marked dullness extends to the latter, and three fourths of an inch beyond it. I can easily define the boundaries of this dullness, which I indicate on the chest with ink. On the right side percussing on the same horizontal line, the dullness extends about two inches beyond the right margin of the sternum. The heart is evidently enlarged, and the width of the dullness at the base leads me to think that the auricles are especially dilated.

The apex beat of the heart, as we have seen already, is scarcely perceptible. In fact it is more readily seen than felt. There is no heaving of the præcordia, nor is any impulse elsewhere than at the apex to be felt. This fact, taken in connection with the shortness and valvular quality of the first sound, leads me to think that dilatation of the heart predominates over hypertrophy.

The conclusions, then, based on the physical signs developed by the examination, are, that lesions exist at the mitral and aortic orifices — at the latter orifice giving rise to regurgitation, and propably causing obstruction at the former orifice; that the heart is enlarged by predominant dilatation; that the auricles especially are dilated; and that the right ventricle is hypertrophied, augmenting the intensity of the pulmonic second sound. Let us now see how these conclusions accord with another very interesting sign in the case, and also with certain symptoms.

I now cause the patient to lie upon the back, and I will ask you to direct your attention to the left external jugular vein. You see the vein is considerably enlarged and filled with blood. It is much more distended when the patient is recumbent than when he sits or stands. You perceive that the vein pulsates. The pulsation is so marked that it must be apparent to those on the highest benches in the amphitheatre. The pulsation is also felt by the touch; in fact it is quite strong, much stronger than the pulsation in the carotid artery — the latter being felt with some difficulty. Perhaps you are not at once satisfied that the pulsation apparent in the vein is in reality venous. I will prove to you that it is so by a very simple expedient. I now place my finger on the vein at the lower part of the neck, just above the clavicle, and I make pressure sufficient to interrupt the flow of blood in the vein. The pressure is light and entirely insufficient to interrupt the flow of blood through a large artery. You see that I arrest immediately the pulsation, which returns directly my finger is removed. I can arrest it at will by preventing the flow of blood in the vessel. This suffices to prove that it is venous, not an arterial pulsation. It is due to a retrograde current of blood through the venæ cavæ, and the larger veins which are tributary thereto. It is apparent on the right as well as on the left side of the neck, but, contrary to the rule, is much more marked on the left side.

This venous pulse, is of course, caused by the heart's action. Now, is it caused by the contraction of the right auricle or the left ventricle? It must be caused by one or the other, because the jugular vein is in direct communication only with the right side of the heart. Clinical observation shows that it may be produced either by the right auricle or the right ventricle. Can we determine which? Nothing is easier. If produced by the contraction of the right ventricle, it must seem simultaneously or nearly so with the carotid pulse, because the two ventricles contract synchronously; but if produced by the contraction of the auricle, it should occur just before the carotid pulse, because observation has taught us that the auricles contract just before the contraction of the ventricles. I have only then to place my finger on the carotid and watch the venous pulsation in order to determine the relation to each other in which they occur. I satisfy myself that the venous pulsation just precedes the carotid pulse — a conclusion which I had not expected, because, from the strength of the latter, I had thought to have found it produced by the ventricle. It is, then, an auricular venous pulse. I have known both an auricular and a ventricular venous pulse to be present, and in this case, on close examination, I can perceive occasionally a slight undulation occurring simultaneously with the carotid pulse, and this I suppose to be due to the contraction of the right ventricle.

What is the significance of this auricular venous pulse? It shows that the right ventricle is distended, so that when the auricle contracts, the blood, not finding ready entrance into the ventricle, regurgitates into the large veins opening into the auricle. A ventricular venous pulse would show regurgitation from the right ventricle into the auricle when the ventricle contracts.

It is interesting to see how the condition of the right cavities of the heart, as indicated by the pulsation and fullness of the veins of the neck, harmonizes with certain symptoms in this case. The right cavities are overdistended with blood, arising, as we may rationally infer, from obstruction at the mitral orifice. This induces congestion of the systemic venous system generally Hence, we have in part an explanation of the lividity or cyanosis to which I have called your attention. And it is this venous congestion, in a great measure, which has induced the general dropsy which we have seen to exist in the case. This latter symptom has occurred in accordance with a general law pertaining to cardiac diseases, viz.: it takes place, whenever, in the progress of the disease, the right cavities become permanently so distended as to involve a considerable obstacle to the return of blood to the heart, and consequently a certain amount of venous congestion. The dropsy arises from the mechanical distension of the veins, although other circumstances, such as the condition of the blood itself, for example, may contribute to it.

I have not yet spoken of the pulse in this case. This symptom is significant. It is extremely small and weak. The radial artery feels under the finger like a thread, and the carotid is not readily felt. The contrast between the venous and the arterial pulse in the neck is striking. We can readily account for this state of the arterial pulse, by supposing the existence of considerable mitral obstruction. This obstruction, while it leads to overrepletion of the left auricle, and the right cavities of the heart, prevents the left ventricle from receiving a proper supply of blood. The small quantity of blood expelled by the left ventricle, with each contraction, necessarily involves smallness and weakness of the pulse The pulse, under these circumstances, also is apt to be irregular and unequal.

I will now dismiss the patient, and then offer a few remarks further on the case.

The prognosis, I need hardly say, is unfavorable. There is but little prospect that, as regards the affection of the heart, the patient will be benefitted. I shall prescribe a hydrogogue cathartic with a view to diminish somewhat the water in the blood, and thereby perhaps relieve the general dropsy. It is doubtful, however, whether this object will be fulfilled. After this the indications will be to place the patient on a solid, dry, nutritious diet; to endeavor to increase the vigor of the heart's action by tonic remedies; to keep the bowels open, and maintain free action of the kidneys. All that we can hope to accomplish is to postpone the fatal termination. But the probability is that, whatever measures are pursued, the dropsy will increase, and the case will end fatally at a period not very remote.

This patient furnishes us with an example, not only of organic disease of the heart, but of another serious affection, viz.: epilepsy. He states that he has been subject to epileptic fits for the last three years, and that they have occurred sometimes after an interval of a month, and sometimes every two weeks. I suppose most of you are acquainted with the phenomena which characterize epileptic paroxysms. The diagnostic points of the form usually met with in practice, are the sudden appearance of coma and convulsions, sometimes preceded by certain sensations which warn the patient of the approach of a fit, and sometimes without any warning; a cry, generally uttered at the moment of the attack, which is sometimes remarkably loud and piercing: clonic convulsions often, extremely violent, extending more or less over the body; spasm of the laryngeal muscles, occasioning difficulty of breathing, and consequently, congestion of the face and lividity; convulsive movements of the masticatory muscles, in consequence of which foamy saliva escapes from the mouth; thrusting of the tongue between the teeth, and wounding of that organ, which causes blood frequently to be mixed with the foam on the lips. The paroxysm lasts usually from three to five minutes, when it passes off, leaving the patient more or less fatigued, frequently disposed to sleep, sometimes in a condition approaching to coma, and occasionally delirious. These are the characters by which an epileptic paroxysm is to be distinguished. We have no difficulty in recognizing the affection when we have the opportunity of witnessing the attack; but it will very often happen that we have not this opportunity. The patient, or the friends, simply tell us that he is subject to epilepsy; and in order to be assured that the fits are epileptic, we have to obtain enough of the history to ascertain whether a sufficient number of the diagnostic characters are present. The friends may be able to furnish this information, but the patient cannot, for he is wholly unconscious of what occurs during the paroxysm. He only knows that he has had a period of unconsciousness, and he may not even know this when, as not unfrequently happens, the attack occurs during the sleep. When we have no other source of information than the patient's statement, we can often confirm it by an examination of the tongue. This organ is apt to be wounded by the convulsive movements of the masticatory muscles, so severely as to leave permanent marks of the injuries it receives, in the shape of fissures, which are the cicatrized wounds. In this case, having at first only the statement of the patient, I was led to examine the tongue, and the dorsal surface presented several fissures, which showed the statement to be correct. But the fact was substantiated by the occurrence of several paroxysms a few days after his admission.

Has the epilepsy in this case any pathological connection with the disease of the heart? I suppose not; for out of a pretty large number of cases of disease of the heart which I have collected, I do not recall another instance in which epilepsy existed. It has been surmised that the paroxysms of epilepsy conduce to the development of hypertrophy and dilatation of the heart; but clinical observation does not furnish facts confirmatory of this surmise. In this case it is altogether probable that the disease of the heart preceded the development of epilepsy, although the latter disease appeared before the patient began to experience inconvenience from the former. In view of the infrequency with which the two affections are found to be associated, we must conclude that the concurrence is accidental.

With respect to the pathology of epilepsy, it is far easier to say what it is not, than to say what is the essential morbid condition on which it depends. It is customary to attribute the paroxysms to cerebral congestion, but we may say positively that this is not a correct explanation. Paroxysms occur often where there is no evidence that cerebral congestion preceded their occurrence; and we know that the paroxysms must induce great congestion, so that, according to this theory, the paroxysm ought to continue rather than terminate after the lapse of a few moments. Moreover, congestion of the brain undoubtedly occurs often enough in connection with diseases of the heart and other affections, without giving rise to epilepsy. Congestion, as applied to different organs, is a very convenient term to cover up our want of positive knowledge. I conceive it to be far better always to admit our ignorance. We are nearer the truth when we properly take such a position, than when we commit ourselves to an erroneous hypothesis. In the former case, we have only to learn when the truth is developed; in the latter case, we have to unlearn before we can learn, and experience teaches us that it is far more difficult to unlearn than to learn. Even if congestion were an essential morbid condition, it could not be considered to be the primary condition. Some other condition must precede the congestion and give rise to it. The fact is, the pathology of epilepsy, with our present knowledge, is unknown.

The seat of the unknown morbid condition which constitutes the disease, is a mooted point. Some refer it to the brain; some (following Marshall Hall) think it is seated in the spinal cord; and recently a distinguished anatomist in Holland regards it as an affection of the medulla oblongata. Prof. Van der Kolk, just referred to, is the author of a work entitled "The Minute Structure and Functions of the Spinal Cord and Medulla Oblongata, and on the Proximate Cause and Rational Treatment of Epilepsy," a translation of which has recently been published by the new Sydenham Society of London. As a deduction from the minute structure and functions of the medulla oblongata, he concludes that this part of the nervous system is the point of departure for the centric influences, giving rise to epileptic and other convulsions. But he also claims to have ascertained, by the examination of this part after death in several cases of epilepsy, that it is the seat of certain morbid alterations, viz.: enlargement of the capillary vessels, hardening from an albuminous exudation, and sometimes softening from fatty degeneration. His pathology of the disease is that, in the first place, it consists in an abnormal sensibility and excitability of the medulla oblongata, and hence, various eccentric influences may excite epileptic paroxysms. Then, as results of the congestions incident to the repetitions of the paroxysms, the organic changes just mentioned occur — the vessels first becoming dilated, and afterward exudation and fatty degeneration taking place.

I give this as the most recent endeavor to localize the morbid condition in epilepsy, and define its pathological character. The minute, careful and extended observations of the author entitle his conclusions to respectful consideration. Whether they have advanced our knowledge of the pathology of the disease, remains to be de ermined by further researches. Assuming the correctness of the views held by Professor Van der Kolk, they are not without practical value. They indicate the importance of combatting by local measures the state of morbid sensibility and excitability in the medulla oblongata before a sufficient number of paroxysms have occurred to lead to the structural changes he describes. In this case the disease has existed already for three years, and it may reasonably be inferred that these changes have already taken place. Nevertheless, I have caused a seton to be inserted high up in the neck, a measure which Professor Van der Kolk advises.

With regard to the treatment of epilepsy, I will simply say that I am not prepared to advocate any remedy or remedies as specially applicable. Some years ago, a French author of a prize essay on the subject, Herpin, reported several cases in which the oxide of zinc had apparently effected a cure, when prescribed early in the disease and continued in pretty large doses for a considerable period. I adopted this treatment in several cases in which the disease had not been of long duration, and carried it out faithfully and perseveringly, but without any good result; hence, I did not feel sufficient encouragement to try the lactate of zinc, which the same author subsequently advocated as a more efficient remedy than the oxide.

The co-existence of epilepsy and disease of the heart, in this case, renders the prognosis even more grave than if the latter existed alone. The disturbance of the circulation of the heart's action incident to the epileptic convulsions, renders them not devoid of danger; and it would not be surprising if he should die in one of the paroxysms. — *N. O. Medical News and Hospital Gazette.*

Gonorrhœa with Articular Rheumatism.

GONORRHŒAL rheumatism is an affection as to the pathology of which surgeons still differ greatly in opinion. Sir A. Cooper is stated to have been the first surgeon who publicly described this affection, which he considers "not an unfrequent disease," and portrays graphically his first case. (Surgical Lectures, pp. 273–74.) Sir Astley Cooper remarks, at the conclusion of this case: "Whether it is by absorption of the poison, or the constant irritation produced by the inflammation of the urethra, I do not know; but certain it is that gonorrhœa produces ophthalmia and rheumatism, and when not a single drop of matter has been applied to the eye." The concurrence of articular rheumatism with gonorrhœa is so often observed, and under circumstances so strongly favoring the belief in the kind of connection arbitrarily called metastatic, that probably the majority of surgeons incline to the retention of the term "gonorrhœal rheumatism" in our surgical nomenclature, and hold to the theory which such a phrase indicates. These opinions are opposed by many modern surgeons, who see nothing more than a coincidence of the two diseases, and consider that they have no casnal relation. They are, however, strengthened by the observation of many cases which come under notice in the course of a wide experience, in which acute rheumatism attacks a patient suffering with gonorrhœa, who has never had any previous rheumatic tendency, and had not been subjected to damp or to any other ordinary causes of rheumatism; the discharge from the urethra disappearing as the joint affection is developed, and reappearing as it is cured. Sometimes these attacks of articular rheumatism, inagurated by a first attack of gonorrhœa, are repeated on subsequent attacks of the latter. Most of these critical points were present in the case J. B——, aged twenty-three, admitted into St. Mary's Hospital under Mr. Coulson's care. He was healthy and robust, and had contracted a gonorrhœal running some two months prior to admission, which still continued. He had not been exposed to the weather, and knew of no way in which he could have contracted rheumatism, but when admitted he was suffering from strongly-marked rheumatic pains and stiffness in the neck, with articular rheumatism of the right knee-joint. He was fearful of being laid up for a long time, as during a previous attack he had suffered greatly from rheumatic inflammation of the left knee. Mr. Coulson ordered for him ten grains of Dover's powder and two grains of calomel at night, with three grains of iodide of potassium and ten of the bicarbonate of potash in camphor mixture every four hours; local warmth and anodynes to the painful parts. The pains and swelling abated under this treatment, and tonics were successfully employed to bring about convalescence. The discharge from the urethra now becoming troublesome, Mr. Coulson ordered a weak solution of nitrate of silver to commence with—one grain to four ounces; and this being properly regulated in strength, and a careful diet observed, the man was discharged cured.

This case was one which seemed to illustrate well most of the points which have induced a belief in the direct connection between gonorrhœa and rheumatism. The treatment which succeeded so well here was simply directed to the cure of the rheumatism in the first instance, leaving the gonorrhœa, no longer inflammatory, to be subsequently treated by injection.—*London Lancet.*

On the Reduction of Luxations of the Head of the Humerus, simply by Manipulation.

Illustrated by Twelve Cases.

BY HENRY H. SMITH, M.D.,

Professor of Surgery, University of Pennsylvania.

HAVING in January, 1858, demonstrated to the medical class of the University of Pennsylvania in attendance upon the surgical clinic, as well as in a medical journal, the facility with which approximate manipulation, without extension or counter-extension, would reduce a luxation of the humerus of three weeks' standing, in the powerful right arm of a blacksmith, I have awaited the result of further experience in regard to the advantages of this method, (elevation and rotation of the head of the humerus,) before renew- its claim to professional consideration.

In order to establish this, attention is now asked to a few points of the anatomy of the joint, especially in connection with the changes produced in its component parts by luxations; to the manipulation demanded for their reduction, and to the result as established in the twelve cases hereafter cited.

In examining the structure of the shoulder joint, it will be readily seen that the capsular ligament is thickest above, being quite thin at other points, and so deficient *below* that Bichat regarded it as supplied entirely by the tendon of the sub-scapularis muscle. The thickness superiorly, is mainly due to the ligamentum ascititium, which keeps the head of the humerus on its proper level, but which, when divided, permits it to fall about one inch and suffer a partial luxation. In consequence of these peculiarities the capsular ligament lacerates easily anteriorly, inferiorly, and posteriorly, the three seats of luxation, whilst it so loose as to offer but little resistance to any motion of the head of the humerus, either within or without the walls of the joint. Owing to this arrangement, the capsular ligament even when torn at one point, offers no resistance to the luxated head of the humerus when the bone is brought at all in proximity to the rent made by its escape from the articular cavity. The chief strength of the humeral articulation is therefore due to the ligamentum ascititium and to the muscles that surround the joint. Of these the *supra-spinatus*, arising from the scapular fossa supra-spinata, is inserted into the inner face of the greater tuberosity of the os humeri, thus raising the arm and rotating it outward.

Elevating the humerus and rotating the head of the bone outward, by means of the fore-arm, relaxes this muscle and removes the main obstacle to the reduction of axillary luxations. The *infra-spinatus* muscle, arising from the fossa infra-spinata, is inserted into the middle facet of the greater tuberosity of the humerus, rotating the latter outward and backward. In axillary luxations it will also be relaxed by the manipulation that relaxed the supra-spinatus muscle. The teres minor and deltoid are similarly relaxed by this movement. The *subscapularis* arising from the body of the scapula is inserted into the lesser tuberosity of the humerus, rolling this bone inward and forward. Elevating the humerus and rotation of the head of the bone outward, renders this muscle tense, by causing it to bind against the neck of the bone—hence the resistance or limit to external rotation, which is removed by bringing the arm down to the side and rotating the head of the humerus forward and inward. These muscles being more or less stretched in all the luxations of the humerus, (aided by the deltoid and pectoralis, under certain conditions,) hold the bone in its false position. Overcoming their contraction by judicious elevation and rotation of the os humeri, will therefore readily reduce an axillary luxation. The manipulation is as follows: Elevate the humerus as much as possible, or, at least, to a right angle with the body, and flex the fore-arm at a right angle with the arm, so that the palm of the hand will present to the patient's abdomen. Then seizing the wrist with one hand, and the surgical neck of the humerus with the other, whilst the arm is thus elevated and the fore-arm flexed, use the fore-arm as a lever, and rotate the head of the humerus upward, outward, and backward, until the palm of the patient's hand looks upward, and a strong resistance to further rotation, caused by the tendon of the subscapularis, is felt. Then bringing the elbow slowly to the side, and keeping the humerus parallel with the middle line of the axilla — that is, not carrying the arm either toward the anterior or posterior portion of the trunk — *rotate* the head of the humerus upward and forward by reversing the motion on the fore-arm until the palm of the hand shall again look downwards, bringing the elbow to the side during this latter rotation, when the luxation will be reduced with great ease to both patient and surgeon in less time than it takes to describe the manipulation.

In brief, and to prevent misconception and the failure of the proceeding from want of close attention to the directions, as well as to systematize the proceeding, this method may be arranged into three motions or periods.

1st. Elevation of the arm and flexion of the fore-arm.

2. Rotation of the head of the humerus upward, outward, and backward, as far as is possible, by using the fore-arm as a lever.

3d. Rotation of the head of the humerus upward and inward by a reverse movement, whilst the elbow is brought to the side. The reduction of luxations by this manipulation does not require the use of an anæsthetic, provided it is gently and slowly practiced, so as not to induce fear of pain or muscular resistance on the part of the patient. It may be best practiced whilst the patient is lying down, but will succeed even when sitting up, although then the scapula should be steadied. If the patient resists, or is very muscular, anæsthesia will facilitate the reduction.

To reduce an *anterior* luxation, carry the elbow as far backward as possible and elevate it so as to throw the head of the bone into the axilla, then treat it as an original axillary luxation. The rent in the capsular ligament will offer no obstacle. The posterior luxations have long been reduced to axillary luxations, simply by elevating the arm and carrying it strongly forward. The following cases illustrate the result of the method just described.

Case 1. J. D., æt. 35, blacksmith; luxation of the right arm anteriorly —the head of the humerus resting beneath the clavicle and remaining unreduced for three weeks. *Reduction:* Head of bone thrust into the axilla by elevation of the arm, and thence rotated to the glenoid cavity by the method above described, in a few seconds. Patient etherized and treated (Jan. 6, 1858,) at the surgical clinic of the University of Pennsylvania.

Case 2. D. D., æt. 48 years; recent luxation into the axilla. Treated by elevation and rotation by the above method, without the use of anæsthetics, by Dr. H. Lennox Hodge, of Philadelphia, May 23, 1859.

Case 3. G. P., æt. 38 years; recent axillary luxation. Treated by the same method by Dr. Hodge, without ether, June 4, 1859.

Case 4. T. L., æt. 35 years; recent axillary luxation. Similarly treated by Dr. Hodge, without anæsthetics, July 23, 1859.

Case 5. D. M. D., æt. 50; recent axillary luxation. Treated by Dr. Hodge, July 26, 1859.

Case 6. T. M., æt. 52 years: axillary luxation of several hours. Treated without ether by Dr. Hodge, July 31, 1859.

Case 7. J. I., æt. 56 years; axillary luxation. Treated under ether by Dr. Hodge, August 4, 1859.

These six cases were of recent occurrence, varying from three to twenty-four hours; in muscular laboring men, and the reduction was easily accomplished in all of them.

Case 8. An athletic Irish laborer, aged 36 years; luxation of right arm anteriorly under the pectoral muscle, of fifteen hours' duration. Treated, July 4, 1860, by Dr. J. J. Woodward, of Philadelphia.

In this case efforts had been made by extension and counter-extension, with the foot in the axilla, but without success. Dr. Woodward, besides the method of rotation and elevation just described, also employed leverage by carrying the arm over the chest; but this additional manipulation is unnecessary.

Case 9. In the following November, the same patient again luxated the humerus into the axilla. His medical attendant having failed to reduce it by extension and counter-extension in the usual manner, Dr. Woodward readily reduced it by elevation and rotation of the humerus, as in the previous instance.

Case 10. Female, æt. 65; luxation into axilla, of forty-eight hours. Reduced by myself by the same plan, after failure of the usual method, in September, 1860.

Case 11. Luxation of humerus into the axilla, of six weeks' standing, in a child; similarly reduced, December 23, 1860, by Dr. J. E. Garretson, of Philadelphia.

Case 12. A muscular boatman, æt. 44; luxation anteriorly, of twenty-seven hours' standing. Extension by the strength of five men having failed, Jarvis's adjuster was applied and broken. The patient coming at once to Philadelphia, I reduced his luxation with great ease by elevation and rotation, without the use of ether, before the medical class of the University of Pennsylvania, in December, 1860.

Although the subject of luxations of the humerus has been carefully studied since the earliest period of surgery, and the anatomical relations of the displaced bone are well understood at the present day, the laborious and often dangerous plan of extension and counter-extension has been the general practice of surgeons, especially in England and the United States, until quite recently. So true is this that many readers are, perhaps, unaware that other plans have been suggested at various periods. Hamilton, in his recent treatise on fractures and luxations, reports the following case, which is illustrative of the failure and trouble attendant, in some instances, on the plan of extension and counter-extension:—

"Mary Kanally, æt. 49, admitted into the Buffalo Hospital with a dislocation of the right humerus into the axilla, which had occurred twelve hours before. Extension and counter-extension, in every possible direction, having been made by two surgeons before she entered the hospital, Dr. Hamilton placed her completely under the influence of chloroform, and tried assiduously for one hour without success. On the following day, she was bled freely, and chloroform again administered, extension being made by Jarvis's adjuster. After more than an hour, the effort was suspended. On the following day, the patient being completely chloroformized, a third attempt was made with no better success. On the tenth day, assisted by several surgeons, the compound pullies were applied, and the arm moved in various directions, but without success, the woman refusing to submit to further attempts, and not being subsequently heard from."

This case, being a recent injury in the hands of skillful surgeons, may be regarded as a fair type of the defects of the method of extension and counter-extension, whilst cases — one, eight, nine, ten, and twelve — herewith reported, as well as many other instances of the defects of extension, indicate the same thing, some having been followed by laceration of the axillary artery. It is, therefore, singular that such a method has so long maintained a reputation in the treatment of an injury of such frequent occurrence.

Elevation and rotation of the head of the humerus is not a new suggestion, but has, in various forms, been alluded to by different writers, and variously employed by surgeons, though generally in combination, or as an adjuvant to other plans. It has been but seldom recognized as a simple and powerful means of treatment. Elevation alone was practiced by Brunus in the thirteenth century, but fell into oblivion until the eighteenth; since which time it has been employed in various ways, especially in conjunction with prying upward the head of the humerus by means of a fulcrum of some kind applied to the shaft of the bone. Malgaigne, whilst recognizing its advantages, yet regards extension "as greatly aiding the reduction." Rotation alone, or combined with elevation, appears to have been known to Hippocrates, he carrying the arm behind the back whilst elevating the elbow and giving it a rotary motion with one hand, the other being employed to steady the scapula. Desault, Pettit, and Syme also, at different periods, practiced similar manipulation, though the latter, in his paper, added extension, giving rotation only a secondary value, or applying it to the arm, as he did to the thigh, as an adjuvant to other measures. The facility of the reduction by *elevation and rotation alone*, the ease with which it may be employed by the surgeon, and the absence of risk or injury to the patient, have satisfied me that, methodized and amended as it is now presented, it is worthy of trial, and with this view I have cited the preceding cases as illustrative of its success in instances where trouble and failure would certainly have been experienced in the use of extension and counter-extension.—*Philadelphia Med. and Surgical Reporter.*

Reduction of an Axillary Luxation by Professor Henry H. Smith's Method, after Failure by Extension.—By J. H. Wilson, M. D., of Schnecksville, Pennsylvania.—About 10 o'clock, A. M., February 3d, I was called to a farmer, strong and muscular, 66 years of age, who had luxated his shoulder by being thrown from his sleigh. Having no one to assist me but his wife and a little boy, I placed him on a bed and began to administer ether; but by the time he was nearly under its influence, throwing himself about, with his eyes wide open and fixed on me, his wife became alarmed, and begged me to desist and wait until his boys came home. Having done so, the old man recovered from the stimulus of the ether, and said that rather than feel so bad again, he would have the arm reduced without being put asleep. I then placed him on the floor, sat down alongside of him, placed my foot in his axilla, and began to pull, but soon found I could do but little. I then had one of the sons to assist me, but without being able to overcome the muscles, the old man screaming all the time with pain. He now begged for the ether, even if it killed him. I then used ether and chloroform, in the proportion of one part of the latter to three of the former, by weight. After he was fully insensible, I flexed the fore-arm at a right angle with the arm, raised the arm until the elbow was about five inches above the level of the inferior edge of the glenoid cavity, and, using the fore-arm as a lever, rotated the head of the humerus upward and backward, until the palm of the hand looked almost directly upward, the patient being held up on a chair; then bringing the elbow to the side and slightly across the body, gave the fore-arm a reverse motion, until the palm of the hand looked toward the belly, when the bone slipped back into the joint without the least trouble.—*Ib.*

The Action of Phosphorus on the Blood.

BY PROFESSOR NASSE.

1. A grain and a half of phosphorus, dissolved in an ounce and a half of rape-seed oil, was given to a cur, being mixed with the food he consumed during two days. As he only took food once a day, consequently each time he consumed three-quarters of a grain. No symptom manifested until the end of the second day; then his appetite failed, his movements became heavy, the urine sanguinolent; some loss of blood by the anus. The fifth day the dog rapidly became more feeble, and died. In the cadaver, the blood was found entirely liquid, without clot. The stomach was not inflamed. Abdominal cavity contained a little extravasated blood; a considerable quantity of this was found behind the peritoneum, aside of the vertebræ, and especially under the kidneys, and along the course of the ureters to the bladder. A layer of sanguinolent mucus, one or two lines thick, was found attached to the mucous membrane of the duodenum, which was not even softened. The lower portion of the intestinal canal was bloody. The kidneys were neither inflamed nor infiltrated with blood. The mucous membrane of the bladder was of a slight reddish hue. The testicles were colored red from bloody extravasations. In the liver ten or twelve inflamed nodules, from the size of a pea to that of a bean, were observed, generally located near the surface; these nodules were gray, yellowish, and soft in the center, surrounded by a red, firm substance.

2. A bitch of larger size took the first day one grain, the second a grain and a half, and the third a half grain of phosphorus dissolved in poppy oil; that is, three grains in three days. It was taken in the food with which it was mixed, and she ate this regularly until the evening of the third day, when a little stiffness was observed in the posterior extremities, and the hair began to bristle up; otherwise the bitch was active, drinking very much. Her strength suddenly failed on the fourth day. Seven or ten minutes after death, the blood was collected from the vessels; it weighed 545 grammes; the whole weight of the dog was 13 kilogrammes. The blood did not coagulate; there were not even flakes in it; the red color brightened a little in the air, but under the microscope it composed itself in the normal way. The stomach was of a dark red, and contained a dark-brown pultaceous mass, (coagulated blood,) which was even found in the large intestine. The appendicula vermiformis was also filled with blood. The mucous membrane of the small intestine was softened, thickened, and strongly injected, consequently inflamed. Extravasated blood was found in the cellular tissue surrounding the pancreas, partly coagulated, and consequently diffused at first. The liver was full of blood. The urine dark, but not sanguinolent. Everything else was normal. Neither brain nor spinal marrow contained any extravasated blood.

3. A large old hunting dog took daily with his food, without any repugnance for four days, three-quarters of a grain of phosphorus dissolved in three-quarters of an ounce of oil; thus taking six grains. On the fourth day he lost his appetite. The day following blood ran from his mouth and anus. Death about noon. The body was opened in the afternoon. Everywhere the blood was liquid, viscous, and of a dark color; it did not coagulate in the air, and the *cruor* (blood-globules) did not separate from the serum. Cadaveric rigidity soon took place. The mucous membrane of the *duodenum* and the upper portion of the *jejunum* exhibited some red spots. The kidneys were injected, but the liver was not filled with blood. There was much sanguinolent mucus in the stomach.

4. A tolerably strong pregnant bitch took a grain of phosphorus in an ounce of oil; no effect was observed during twenty-four hours. The second day a grain and a half of phosphorus, dissolved in an ounce and a half of poppy oil, was slowly injected into the jugular vein; in a few minutes the animal ceased to live. The blood was coagulated in the cadaver opened immediately. The fœtus was still alive in the uterus.

5. At five o'clock in the evening a half ounce of poppy oil, holding in solution a half grain of phosphorus, was injected into the stomach of a very large rabbit. The experiment was repeated the next morning at 11 o'clock, with 12 grammes of the same phosphorus solution. The animal remained tranquil; it took no nourishment except at noon; the movements of the heart were strongly quickened. It ceased to live during the following night. In the morning the body was found rigid. An opening in the jugular vein gave no blood. The lungs were filled with blood—many clots in the heart. The intestinal canal was not inflamed, and there were no extravasations. In the contents of the stomach, phosphoric acid was detected. This experiment was repeated on another rabbit, with the same result.

6. Five milligrammes of phosphorus, mixed with a little rye paste, were introduced into the stomach of a strong frog. There was no vomiting. Death supervened at the end of twelve hours. The blood contained in the heart was liquid. Phosphorus could be detected in the stomach and upper portion of the intestinal canal. No cadaveric rigidity.

These are the experiments of Nasse, which seem to invite attention. Heretofore, as regards the effects produced by the administration of phosphorus, we have only known the excitation of the nervous system and the genital organs, or death, with inflammation of the stomach and intestinal canal.

The liquid condition of the blood is a fact quite new, and the more remarkable, because it is constant whenever the phosphorus has been absorbed and assimilated. The fourth experiment is not contradictory, for death may have been induced by the presence of the oil in the pulmonary capillaries—phosphorus could not have been assimilated.

The experiments with the rabbits, whose hearts contained coagulated blood, seem not to agree with those made on dogs; but, if we reflect on the readiness with which the rabbits succumbed, recollecting the presence of non-absorbed phosphorus in the stomach and intestines, we must believe that the phosphorus could not have been absorbed, which would explain the coagulation of the blood in the heart.

The liquidity of the blood appears to us a constant occurrence resulting from the action of phosphorus. This action is explained by Mandl, in two ways: either the phosphorus acts chemically on the plasticity of the blood, by combining with its elements, or it acts indirectly on it, through the medium of the nervous system. The first explanation appears refuted by the fourth experiment, in which phosphorus dissolved in oil was injected in the jugular vein of a dog. The blood, upon which the phosphorus could have directly exerted its influence, was found coagulated; from which one may conclude that the liquidity of the blood, observed after the injection of phosphorus, in the first, second and third experiments, was not the result of direct chemical action on the blood.

The coagulation of the blood cannot be attributed to the phosphorus dissolved in the oil, since Nasse has elsewhere shown that indifferent substances, as oil, injected in the blood, sometimes produce coagulation. Furthermore, in this case Nasse says that an analysis of the blood would not explain the energetic action of the phosphorus.

In the opinion of Mandl, probabilities are in favor of the second supposition. They are based upon what has been observed as regards the liquidity of the blood in certain cases of sudden death by lightning, which only acts on the nervous system. But we know that phosphorus is a very powerful excitant of the nervous system, like electricity. Furthermore, in persons struck by lightning, the fluidity of the blood is generally connected with a very considerable cadaveric rigidity; so great that sometimes the body remains upright in the position the individual occupied at the instant of the electrical discharge. A very decided cadaveric rigidity has also been observed by Nasse, in dogs who have taken phosphorus, despite the fluidity of the total mass of the blood.—*American Medical Monthly, from Gazette des Hopitaux.*

EMPLOYMENT OF A NEW CHEMICAL COMPOUND—ARSENIATE OF GOLD—AGAINST CANCER. By Dr. Massard. (*Revue de Therapeutique Medico-Chirurgicale*, Nov. 1, 1860.)—[We doubt not the whole profession of this country will join us in hailing Dr. Massard's contribution to knowledge in regard to the treatment of that terrible and intractable disease, cancer. Quackery, pretension and humbug have so often, however, deluded the world into the temporary belief in some vaunted "cancer cure," that we should be exceedingly careful "to have a reason for the hope that is within us." We should like to give this new chemical compound a fair trial, and wish every physician in the land could and would do the same. A *priori*, we must state that we have long employed the chloride of gold, topically, and the *aurum muriaticum natronatum*, (the chloride of gold and sodium,) internally, in the successful treatment of indurations of the os and cervix uteri, which many physicians would doubtless have pronounced cancer. If the properties and powers of arseniate of gold really *are* what Dr. M. believes them, we would suggest its employment, too, in constitutional syphilis, and other systemic *vices*. His conclusions are, however, as yet not positively decisive enough, and must be confirmed by other observers. We translate for our readers the main points only.] Arseniate of gold is a new remedial agent. It belongs to the class of *alteratives*. It acts profoundly, finally, and permanently on *nutrition*, modifying it, or impressing not only the organ of this function, by a sort of elective action, but the great organic systems: innervation of the digestive apparatus and of the muscles of the life of relation is increased (nervous system;) the morbid secretion of bronchitis concomitant with phthisis and that of tuberculous cavities is lessened; cancerous tumors undergo resolution, i. e., a normal softening; the sanguineous capillaries color the skin with the characteristic color of health (lymphatic system, sanguineous system.)

Arseniate of gold is prepared by shaking together a solution of pure chloride of gold and a solution of arseniate of potash, allowing the mixture to stand for 24 hours, filtering and drying the precipitate. On account of its insolubility in water, arseniate of gold may be given in the solid form. The maximum dose that has as yet been ventured upon, is two centigrammes a day, in two divided doses. The dose ordinarily commenced with, is three to four milligrammes a day. After every two or three days, a milligramme more per day is ordered until the maximum dose is reached, which is then continued for several months. Toxical effects have never yet been observed. The author promises soon to give a complete treatise on the subject.—*Ib.*

Bromide of Iodine as a Topical Application in Diphtheria.

[*To the Editor of the American Medical Times.*]

SIR:—In the treatment of diphtheria, I believe all sound practitioners are agreed that it is of prime importance to do everything calculated to nourish and sustain the patient, whilst administering such medicines as tend to correct the spanæmia, so frequently if not universally recognized as one of its most striking features.

In common with many others, I have relied mainly on the tincture of sesquichloride of iron, for internal administration. Nor has my experience failed to convince me of its excellence. It has the superiority over chlorate of potash, in not disagreeing with the stomach, when properly diluted, and of not producing the exhausting diarrhœa which I have known, occasionally, to follow the use of the salt.

My object in addressing you this note is not to speak of the general medication in diphtheria, so much as to call attention to the fact that, in five cases, I have found great benefit from a topical application of which I have seen no published recommendation.

In the winter of 1859–60, a student of the University Medical College suffered from an exceedingly severe attack of the disease. There were all the well marked constitutional symptoms, with swelling of the lateral cervical glands, and abundant patches of exudation on the tonsils, uvula, roof of the mouth, and posterior pharyngeal wall. This gentleman was a son of Dr. Webb, of Hempstead, Long Island. As a probably fatal prognosis had been made in the case, the young man's father had come to New York, bringing with him a vial containing a mixture of *bromide of iodine*, in mucilage or syrup of gum arabic—two drops of the former to a fluid-ounce of the vehicle. This, he said he had heard, was a good antiseptic, and might prove useful in his son's case, as there was the usual fœtid character of the breath. Drachm doses of the medicine were taken internally, at intervals of several hours; and with a camel's hair pencil, it was applied frequently to the patches of exudation.

It certainly acted as a disinfectant; but it was followed by a remarkable change in the appearance of the membranes. Within twenty-four hours, they had, apparently, broken down—disappearing in spots, entirely, and leaving the mucous membrane red and smooth, where the white exudation had formerly existed. Within the next eighteen hours, the fauces and palate were entirely freed from all pellicular matter. (The patient subsequently recovered.)

The next case in which I used it, occurred in a lad of thirteen, who had, two years previously, suffered severely from scarlet fever. The diphtherial exudation was extensive, the constitutional symptoms very grave, and the angina of the most marked type.

To test the remedy in question, I applied it to the left tonsil, which was hypertrophied very considerably, and completely covered with an exudation, having very much the appearance of white chamois skin, soaked in water. In twelve hours, the edges commenced to loosen, and in twelve more, the whole mass was coughed out, leaving a very red and bleeding surface under its former place. This patch measured a line and a half in thickness, and was an inch in length by three quarters of an inch in breadth. Exudation had commenced to form on the uvula, when the application was made to the tonsil. It soon ceased to spread, and was but ephemeral.

In the last case under my care, a girl of thirteen, whom I had attended seven years ago with well marked scarlatina, the exudation involved the tonsils and spread to the uvula after the fourth day. The bromide of iodine at once checked the fœtor of breath, and in twenty-four hours caused a complete disappearance of membrane both from the tonsils and uvula.

I spare the details of two other cases, as they were not of such character as to make a different description necessary.

I submit these facts to the profession, well knowing with what diffidence we should look upon new "discoveries" in the remedial world, and hoping that the true value of Dr. Webb's suggestion may be ascertained in the only proper manner, i. e., by the result of many observations. I should have waited for more than five cases, before presuming to address you; but, as my practice does not furnish me with the great number of patients that some of my medical brethren have encountered, I indulge the hope that their more extended field of observation may enable them to do what I have suggested above.

The topical application that I have employed has consisted of four or five drops of the bromide, to the fluid-ounce of gum syrup, well applied to the diphtherial patches, every two hours. There is nothing unpleasant to the taste or smell in the tincture thus prepared, notwithstanding the very disagreeable nature, in both these respects, of the pure liquid. It is well to continue its use, less frequently, until the mucous membrane shall have resumed its normal appearance. JOHN T. METCALFE, M.D.

HEALTH OF LONDON.—There were 1269 deaths in London during the week ending December 22d. During the same week were registered the births of 877 boys and 903 girls.—*Lancet.*

An Effort to shorten the Duration, and diminish the Pain, of the First Stage of Labor.

BY B. FORDYCE BARKER, M.D.,

Obstetric Physician to Bellevue Hospital.

MODERN obstetricians divide labor into three stages. The first stage is said to commence with the beginning of labor, and to end with the complete dilation of the cervix uteri; the second stage ends with the expulsion of the child, and the third includes the delivery of the placenta. But there is a precursory period, during which the uterine neck is preparing for the first stage of labor. This period commences in some two weeks, and in others not more than five or six days, before labor may be said to actually begin. During this time the uterine tumor becomes sensibly lower, and this change is accompanied with a corresponding change in the symptoms. The respiration becomes free, the action of the diaphragm is less impeded, and the stomach is no longer compressed; while nausea and vomiting, if they have existed in the latter stages of pregnancy, now disappear. At the same time that the thoracic and epigastric symptoms disappear, a new order of symptoms, referrible to the pelvic organs, take their place. There is a pressure on the rectum and bladder, producing sometimes frequent desire to evacuate the bowels and bladder, tenesmus and dysury, and increased œdema of the genital parts and lower extremities. Walking often becomes painful and difficult, and sometimes even impossible. During this time, also, the woman frequently suffers from pains, short in duration, and occurring at distant intervals, but gradually increasing in length and frequency. This is very generally the fact with primiparæ. These pains are coincident with the uterine contractions; for if the hand be placed over the uterine globe during the time of the pain, it will be found hardening, and, as the pain disappears, gradually relaxing. In the multiparæ, these contractions frequently exist with scarcely any pain. In the primiparæ, it has been remarked, and the experience of most obstetricians will confirm the remark, that when no cause of dystocia exists, the labor is usually much more rapid in those females whe have suffered from frequent pains during the last fortnight of their pregnancy.

We are indebted to modern science for the true explanation of these precursory phenomena. It was formerly taught that at the end of the sixth month of pregnancy, the os internum or the upper portion of the cervix uteri began to open, so as to aid in the enlargement of the body of the uterus; and that this spreading at the upper part continued to advance in proportion as the term of gestation approaches, and consequently, that the length of the neck decreases from above downward, so that the neck entirely disappears at the end of pregnancy. But it has now been established beyond cavil, that the neck has no participation with the body, in forming the uterine walls to inclose the fœtus; but that, on the contrary, the cervix uteri preserves its whole length until the last fortnight of pregnancy. The neck of the uterus undergoes most important changes during the period of gestation, but a discussion of these changes is not pertinent to the subject of this paper. It is sufficient to say here, that the neck of the uterus contributes in no degree to the capacity of the body for retaining the fœtus. But during the last fortnight of pregnancy, its length diminishes very rapidly, opening from above downward until it is wholly effaced. The precursory phenomena alluded to above are due to these changes. To use the language of Caseaux, "in the last fortnight, the internal orifice softens and yields to distention, then expands from above, so that the upper half of the neck gradually becomes confounded with the cavity of the body; the lower part of the ovum will evidently engage in the dilated portion, and soon come in contact with the parts in the neighborhood of the external orifice. The contact occasions a progressive irritation of the nervous fibres of the lower half of the cervix, which, by reacting upon the body, excites its contractions, until finally, the entire neck, being effaced, the irritation reaches its maximum, and labor commences."

The phenomena of the first stage of labor pertain, then, to the dilation of the *external orifice* of the neck of the uterus. Obstetricians are generally agreed in saying that the duration of this stage is two or three times the length of the second stage, where no cause of dys'ocia exists. The pains of this stage are of a peculiar character. They are usually borne with more impatience, and very much less fortitude, than those of the second stage. They are grea'ly dreaded by the patient, who has an instinctive feeling that they are doing no good. She gives utterance to sharp expsessions of suffering when the glottis is free and open during the act of expiration. The pains of the second stage seem to be suppressed, like a person carrying a heavy burden, and are scarcely heard except during inspiration. The pains of the first stage are avoided as much as possible, while the patient seems frequently to solicit and invite those of the second. The expressions of the first stage have been characterized as those of *suffering*—the expressions of the second as those of *exertion*. In ordinary language, the term pain in labor is used as synonymous with contraction, and we speak of its returns, duration, intensity, and weakness, to describe the force and efficiency of the uterine contractions. But this is by no means strictly correct. The muscular contractility of the uterus is precisely of the same nature as that of the other hollow organs, as the bladder and the rectum, and is never developed except under the influence of some stimulant or irritant. The exercise of this organic contractility is usually accompanied with pain in the human female, but this is by no means the invariable rule. Dilatation of the upper portion of the neck is very frequently accomplished under the influence of contractions which are not perceptible to the patient; and in some patients, the same remark is true in regard to the dilatation of the os externum. The intensity of this organic contractility varies extremely in different females; being very strong in some, and scarcely perceptible in others. Its energy bears no relation to the external muscular system; for some strong, muscular women have very weak contractions during labor, and some very weak, feeble women have very strong contractions. This organic contractility is, like all muscular power, exhausted by prolonged exercise, as we often see the labor commence with strong, vigorous, and frequently recurring pains, which, after some hours, become slow and feeble, and sometimes cease altogether for a while. For this reason, the duration of the first stage of labor may greatly influence the favorable progress and length of the second stage. It is usually said that the first stage may be prolonged without danger, and that the only inconveniences resulting are, the great fatigue caused particularly by the loss of sleep, and, in nervous women, considerable irritation, depression of spirits, and alarm; while the second stage cannot be prolonged beyond certain limits without greatly endangering the health of the patient, and oftentimes the life of the child.

The first part of this proposition is true, so far as the immediate results are concerned, but it may be quite the reverse from the exhaustion of the muscular contractility produced; thus inducing a feeble and inefficient action of the organ in the second stage of labor.

It is obvious that if the dilation of the os externum could be accomplished by comparatively painless contractions, as is ordinarily the dilitation of the upper portion of the cervix uteri, a great point will be gained in mitigating "the pains and pangs of labor;" and where no cause of dystocia exists, there is a strong probability that the duration of the second stage would be decidedly decreased.

In 1854, at the close of one of my lectures, I was informed by one of the students that his father, a physician in Ohio, was in the habit of giving belladonna internally, as a preparation for labor. I very much regret that I have lost the name of the gentleman, although I have made repeated efforts to ascertain it. The hint given led to a series of experiments, in which I have been able to test the effects of this plan. I have aimed to commence the treatment about two weeks before the end of gestation; but of course the data for calculation are so uncertain, that the length of time that the medicine was taken varied much from this period. The treatment has been tried with only a part, I may say a small part, of my obstetric patients, for many reasons. In many cases, I have first seen the patient when labor has begun, without having been previously engaged. In others, labor has come on within two or three days after the treatment has been commenced. Others, again, I have attended in former labors, and have not been called until the second stage of labor had commenced. I have found a very great difference in patients as to their susceptibility to the influence of the agent, and also a great difference in the purity and strength of the article. One extract would seem to have double the potency of another, without any corresponding difference in the appearance, color, or odor.

I have aimed always to commence with a minimum dose, but in some cases, owing either to the idiosyncrasy of the patient, or the unusual strength of the article, I have been obliged to diminish the dose; but in most cases it has been gradually doubled, or even tripled. The test has been, the constitutional effects of the article exhibited in a slight degree; as, dryness of the throat, slight uneasiness or giddiness of the head, or dimness of the vision. I direct that any or all of these symptoms should be watched for, and if they appear, to slightly diminish the dose; that is, take it twice instead of thrice a day. In but one case have I had any really unpleasant effects produced. This patient had been poisoned in her childhood by eating the berries of the belladonna, and after taking the article for three days, its constitutional effects were suddenly developed, and excited great alarm on the part of her friends. The symptoms, however, disappeared in the course of twenty-four hours. Labor came on the second day after the disappearance of the symptoms, and was so rapid that I did not see the patient until it was completed. Her first labor (this was the second) was reported to have been thirty-six hours in duration.

In not one of the cases was the child still-born, and in none of them was there post partum hæmorrhage or retention of the placenta. In one, the function of lactation was entirely absent; and in two others, the mammary secretion did not appear until the fifth day. Where the patient was plethoric, of a full habit, rigid fibre and active circulation, I have combined the antimon. et potass. tart., as in the following formula:—

R.—Belladon. ext.,		gr. viij.
Antimon. et potass. tart.,		gr. iij.
Syr. aurantii,		oz. ij.
Tinc. aurantii,		
Aquæ,	aa,	oz. j.

M. S. A tea-spoonful three times a day.

In all the cases, I have commenced with the extract of the belladonna, in one-quarter-grain doses. With some I have made use of the following formula:—

R.—Tinc. cinchon. co., ... oz. iij.
Syr., ... oz. j.
Belladon, ext., ... gr. viij. M.

Where special indications have existed, I have combined the belladonna with a great variety of other articles. The test of a larger experience and of other careful observers is needed to determine whether this prophylactic plan is a real contribution to the progress of the obstetric art.—*American Medical Monthly.*

Communications.

Greisinger's Therapeutics of Typhus.

TRANSLATED FROM THE GERMAN BY E. STAUB, M D.

ALTHOUGH petechial and ileo-typhus must be looked upon as two specifically different diseases, still the general principles governing many of the particulars of treatment are the same, and to avoid repetition we shall confine our remarks to the therapeutics of both, specifying individual features to be observed in the one or the other as we proceed.

The principle treatment in both diseases, which has given the most favorable results, and is at the same time sustained by the most extensive experience, is the expectant method for the typhus process itself; for this process there are no direct curative means known.

Our next course is to meet with promptness those accidental symptoms which arise and are troublesome to the patient, or which may threaten danger, and again, which of themselves exercise a disturbance of the natural course of the malady, the natural tendency of which is to terminate in health.

To carry the patient through the typhus process,—a process which, when once begun can not be checked, (and which, like measles, or small-pox, or scarlatina, will run its course despite all counter treatment,) depends in part on general dietetic measures, about which no difference of opinion now exists.

Further, to use an active treatment for the purpose of soothing a dangerous or disagreeable complication that may arise in any given case, we often become misguided by our desires to render the patient aid; we must not be forgetful that we have to study the special form and kind of the complication presented, rather perhaps than the individual suffering of the patient. We take this opportunity therefore to declare it a positive therapeutic error (although it may be seen every day) if the physician attempts to modify by drugs, the symptoms which necessarily belong to typhus, even if they are of a moderate form. An error of still greater magnitude is committed by the physician if he endeavors by reputed specifics to cure or destroy the process itself.

To form a correct judgment of the results of treatment, which are brought out by various statistical reports, and often mere assertion, it is necessary that we consider thoroughly how different is the degree of intensity of these diseases, at different times and places, and even during the same epidemic, how widely the number of slight cases differ, and how difficult often it becomes to distinguish these slight cases in the beginning, which would end favorably under nearly every method of treatment for the febricula; we must not forget that there is a broad difference in the measure by which different authors count off to us the improvement of single symptoms and degrees

In both forms of typhus prophylactic measures may be employed to prevent the spread of the malady and increase in its severity. These consist in all those general measures relating to household and district cleanliness commonly observed.

General Treatment.—A patient is attacked with the prodromal symptoms of typhus; during the first days we must abstain from active meddling in the case. The patient should be as far as possible removed from the exciting atmospheric causes, from all business; absolute rest and a strict diet. Cold cataplasms to the head if the headache is severe. An emetic of ipecachuana may be administered in the early stages, if the contents of the stomach should consist of too copious ingesta, or if the patient is nauseated with an inclination to vomit, but unable to do so. Purgatives must be avoided under all circumstances.

In petechial typhus we do not risk so much by the use of emetics as in ileo-typhus. By these means all the symptoms will often disappear in a few days which have ushered in the malady, even in persons who were exposed to the contagion. But if the disease is still developed after these measures, experience has taught us that its course is smoother, and that there is less disposition to complications, so soon as the patient is brought under the proper dietetic condition.

If we are called at a later period, when the symptoms are more developed, which render typhus probable or certain, we should immediately place in force all those general hygienic conditions that would destroy whatever might prove of a noxious character. Above all things else, careful nursing now becomes the essential element in treating the disease and carrying the patient safely through; the physician should *know* that these things are done, and it thus becomes necessary that he sees his patient often. Pure air should constantly surround the patient, but continued air-draughts are not advisable if the temperature is low, for the patient should not feel cold. If the air be temperate or warm, such currents may be practiced in hospitals. The temperature should be about 14 Reaumer (63 Fahr.,) but continued purity of the air is of more importance than temperature.

The typhus patient should lie in such manner that irregular and long-continued pressure on the parts may be avoided; it is useful in all, and necessary in many cases, that the patient change his bed once at least each day, and for this purpose low beds standing beside each other are most convenient; he should be changed more often if he calls for the change himself. The most scrupulous cleanliness of clothing and the patient's body, particularly those parts on which he rests, are imperatively demanded.

During the first period of typhus, particularly during the first week, while the gastric symptoms and fever are very persistent, the patient desires no nourishment; the loss of appetite prohibits an attempt to eat; he desires nothing but cold water. No principle can be more erroneous than that the patient should be without nutriment during typhus; the smallest amount of appetite must be immediately satisfied. In many cases we are not to wait for the patient's calls for food; he in his somnolent state is confused, and knows not his requirements.

So soon as the patient exhibits no positive dislike to food, (which is usually at the end of the second or third week,) he should be allowed that which is most easily digested and nourishing, and it should invariably be given in the liquid form. It may be varied, and composed of milk with water, chicken broth, veal, &c., &c., with weak wine and water.

The more marked the exhaustion of the patient, and also his emaciation by hunger, and the marked moderation of his fever, the sooner he requires nourishment; he should be fed on the best soups In our treatment of this disease it must not be forgotten that the patient be allowed to have frequent drinks, either of *fresh water* or carbonic acid water; it should be given him without his calling for it. If there be diarrhœa, barley water, or almonds with milk; in the absence of diarrhœa, lemonade or the juices of fruits. All mental exertion and emotions must be stopped, for in severe cases it leads to dangerous results.

The whole of the treatment in the first stage of typhus is simply cooling and depriving, until the accession ot the second stage, when it becomes of a restorative nature, but solid food is not to be allowed until all febrile symptoms and diarrhœa have passed away.

Great precautions as to diet are very necessary during the convalescence, for trifling dietetic mishaps have been followed by most unpleasant consequences; we should prevent our patients from indulging in the use of fat foods and green fruits.

In difficult and slow convalescents, abstinence from mental efforts for two or more months, the fresh air of a rural district, and lukewarm baths, are the most beneficial courses of treatment. In the great majority of cases these dietetic measures are amply sufficient for the treatment of typhus, and they accomplish, most satisfactorily, all that it be possible to attain; the patient, under these circumstances, requires no aid from medicines; and if he receives those aids? he is in excellent fortune should they prove inefficient.

On the treatment of individual symptoms we would say a few words. In numerous cases, at the bedside of the typhus patient, there is one thing to which your attention must be directed. There is here one desideratum, viz., to be able to check the intensity of the fever, which seems increasing daily, and which of itself often threatens to destroy the patient, or by the complications it induces. There is no known remedy that is specific in meeting the effects of the systemic poisons, which are productive of, or may increase the febrile condition. All that we are able to accomplish must be done through palliatives, and through those means at times something may be attained. Besides cool, fresh air, and the free use of cooling beverages, cold applications to the head, which should be the more constantly applied the hotter and more flushed the head may become. Also repeated washings with cold water over the whole body, or a bath of the same material once a day.

As to our internal treatment, the dilute mineral acids may be given; the hydrochloric and phosphoric acids will be found the best, one to two drams during the twenty-four hours, in the form of acid drinks, with or without syrups, as may be best tolerated. If copious sweating or hæmorrhages should occur early, the sulphuric acid should be substituted. The effect of the acids on the system seem to be cooling in their effects, but the neutralizing effects of the alkaline contents of the intestine in forming salts may not be without value; but little upon this subject is yet known. Their effect in ameliorating the pathological condition of the blood is a very dubious proposition. If diarrhœa or bronchial complications are present, the use of acids are contraindicated. We must understand that the above measures are adapted to those cases only in which the febrile heat is in excess, and its application in every case would be as irrational as every other specific treatment.

From 1808 to 1815, during which time the treatment of typhus by many physicians was that of frequent washings with cold water, and its local applications, with the shower and douche, and almost without the use of drugs, there were good recoveries, such as might ensue from reasonably selected cases; this method thus became in later times, and through the help of hydropathy, more or less a general measure. With this treatment in ileotyphus our experience has not been at all favorable. Briquet, in 1852, treated this form extensively with frequent washings and the internal use of ice, which gave us bad results not only with the period of duration of the disease but with the termination.

As to the treatment with fatty inunctions, I will not attempt to discuss its merits; so far as known, its results have not been satisfactory.

A moderate cooling treatment must be continued during the whole of the first period; it diminishes the frequency of the pulse, and the heat of the skin; it promotes rest and induces sleep. Avoid the use of warm drinks, and especially a warm treatment, as it has a tendency to induce that which we wish to avoid, viz., the reducing sweats, and these must be particularly guarded against during convalescence.

I would now direct your attention to the digestive organs. Cleanliness of the mouth is indispensably necessary, and for the removal of offensive matters here situated, weak alkaline solutions are well adapted (as soda); we have also to observe that the mouth is kept moist, and the thirst quenched. We have already observed the strict necessity of great care respecting food, because as the intestinal mucous membrane is very prone to become irritable from slight causes, it must be treated with the greatest care. Diptheric exudates or sordes in the mouth or pharyngeal cavity must be removed at once, and they will most readily come away by the use of the dorsil or brush, with the mineral acids or strong solutions of alum.

If the abdominal pains are strong, warm poultices may be applied and continued without intermission; at times they may be exchanged for sinapisms; cupping and leeching is adapted only to those exceptional cases where the abdominal pain and sensibility is excessive during the first period of the disease, and which, as well as thoracic congestions, are not relieved by cataplasms.

A moderate diarrhœa is an attendant of ileo-typhus, and must not be supended, except in the second stage, when it then may become so frequent and copious as to menace danger from exhaus ion or destroying the rest of the patient; it is preferable that it should be allowed to diminish and cease spontaneously.

The ipecacuanha (gr. 10.15) in infusion, so frequently employed to arrest the diarrhœa, is quite uncertain in its action, and it is not unfrequent that we find it increasing the trouble; the same fact holds good also as regards calomel in small doses (gr. 1-8.1-2) each two hours. The best remedies for the purpose, in my opinion, is alum with opium, or tannic acid, for internal remedies, or the use of nitrate of silver (2.4 gr.) by injection; with these means warm sinapisms to the stomach and abdomen may be combined.

Persistent constipation is removed by enemas, and if these prove insufficient, a dose of castor oil will commonly fulfill the indications. If meteorism is present to any considerable degree, enemas of chamomile infusion with turpentine (one or two drams) may be used with advantage; before this accident becomes very considerable, cold cataplasm (as a bladder of ice) will ordinarily accomplish all we may desire in this particular; this accident commonly results from too copious accumulation of the feces, and when evacuated by these means prompt relief is afforded. The experiments to relieve the meteorism by the use of exhausting apparatus, has not given those satisfactory results which were promised, but the introduction of a large catheter (two feet long) is sometimes very useful, for immediately fluid feces and gas will pass away through the instrument; the stomach immediately responds to this effect, from the fact that pressure on this organ becomes diminished.

The *hæmorrhages from the intestine*, incident to this disease, yield the most readily to the combined and energetic application of iced enemata, cataplasms and the *ice pill*; these cold preparations are well tolerated by the patient, and through them rest and quiet are obtained; the medicinal agents most useful are alum, tannin, acetate of lead, chloride of iron, combined often with opium; in cases of collapse, wine and camphor should be used in conjunction. As the iron solutions color the stools black for some time, we must be careful not to confound this feature with continued intestinal hæmorrhage.

When the symptoms of perforation occur, the most complete bodily quietude must be observed, all drinks must be avoided, in place of which little pieces of ice may be used; we should also avoid the use of enemas. One grain of opium may be given each two hours until these symptoms disappear, or the patient exhibits narcotism; at the same time, iced cataplasms, made light, may be applied to the stomach.

Pulmonary complications in typhus are serious in their effects, and we should meet them by palliative measures. The drinks and the whole regimen should be warmer than those suggested above; weak infusion of ipecac may be used, and warm poultices applied to the chest; if the bronchial secretions are tenacious and tough, the golden sulphuret of antimony may be tried. When it is found that the whistling sounds extend over a considerable extent of surface, we should not hesitate to abstract blood by means of cups, and which we are necesitated to repeat several times. In those cases where we find the *bronchia filled*, and the expectoration difficult, we must not fail to give the ipecac in freer doses. Senega and other remedies of a similar nature may also be used; a little camphor at times produces kind results; Mr. Stokes has used with advantage the turpentine in doses of 20 or 30 drops three times a day. We shall prevent larger and more serious accumulations and prevent stasis, by often changing the position of the patient in bed.

The lobular pneumonia is to be treated according to the symptoms it presents; under certain conditions it requires the use of stimulants.

When we find symptoms of *laryngitis* set in, the irritative cough is best overcome by the use of mucilaginous fluids, and if pain be present, the use of cataplasms and similar measures will be found most efficient. Sometimes œdema of the glottis attends the laryngitis when it is acute, and then we should not hesitate to perform the operation of tracheotomy early.

Tracheotomy for the relief of this dangerous and distressing accident has been performed several times, and the patients have convalesced; but too often the physician is called too late in these cases, and in spite of any means used the symptoms rapidly end in death. With this trouble there is apt to coexist other serious alterations in other portions of the respiratory organs which frustrate all our endeavors at relief.

(To be continued.)

On some of the Chemical and Physiological Reactions of the Double Per-Phosphate of Iron.

BY J. B. TRASK, M.D.

WHOEVER has studied with care the manner in which the phosphoric acids comport themselves, must often have been struck with the varied, interesting, and peculiarly accommodating features of its combinations with alkaline and the metallic bases. Not alone in a reactionary point of view do the salts of these acids become interesting, but by careful study we find that their physiological relation is subject to much greater diversity of mutation than those observed in chemical union with the earthy, alkaline, and metallic bases as found in nature, and the artificial chemical combinations which we produce in our laboratories.

Some two years since, while investigating some of the phosporic salts of iron in a variety of pharmaceutical preparations, we observed some features in the chemical reactions of those salts which certainly were very anomalous, and while those reactions were somewhat puzzling and annoying, they became equally interesting in a strictly chemical point of view. We think there are but few pharmaciens who have not met with equally annoying circumstances in their varied preparations of that class of remedies into which the phosphoric salts have largely entered; and while an excess of acidity has taken up a troublesome precipitate under one thermometric condition, they have soon found that some other temperature has placed their compound remedy in as bad a condition as before.

Our present intention is to state some of the peculiar reactions which we have observed (chemically) in the soluble per-phosphate of iron. In the first place, we would here observe, that this salt may present a variety of forms in crystallization, and that those varieties of crystals will not give the same reactions with the same reagent; thus, if the salt has been produced by moderate evaporation, the reactions will be different with some other phosphoric reagent, than when the salt has been produced by spontaneous evaporation; again, the fine acicular crystals obtained by precipitating the aqueous solution of the per-phosphate with absolute alcohol, will not give you the same results with the latter or any other reagent, (except bisulphide of ammonium,) as the aqueous solution which has been crystallized, or that which has received the solid form by evaporation at 170 Fahrenheit.

We presume that the above statement is sufficient to illustrate somewhat the Protean character of this phospate of iron.

The filtered solution when recently prepared is transparent (if dilute) and of a very deep, dark madder purple, by transmitted light; it is permanent if kept in the dark; if exposed to diffuse or bright sunlight, its color changes to that of transparent brown, with a slight purple tinge; this latter color remains permanent in any light at medium temperature, so long as it is in solution. Its [photic] properties are interesting, a brief detail of which we add.

Evaporate this solution spontaneously in sunlight, and in white glass and in a thin coat, we shall obtain a light incrustation of radiating, needle-like crystals; if this is done on a reddish-brown ground, they will remain transparent and white for some days, (15 to 20;) if the glass is placed on a light ground, those crystals become of an iron-brown, but still transparent; if upon a transparent ground, they suffer no discoloration at the end of four months.

Again, evaporate the same solution on a surface of white porcelain, and we have a different class of phenomena; the salt crystallizes as before; the pellicle line, on exposure to direct sunlight for five or six days, changes color, first becoming dark green, subsequently changing to greenish-blue, and finally to a fine, deep sky-blue, and semi-opaque; the same salt below this line goes through a gradation of tint, of the above complement of color, till it arrives at the bottom of the capsule, where it remains for a long period perfectly white. A solution of all these latter salts is transparent, darkish-green, either cold or hot, and filters out in the original color. Like the original solution, it again crystallizes in the same form, but, unlike the latter, it does not possess the peculiar properties of absorbing ninety-eight per cent. of light in its passage through the solution at the same degree of concentration. I do not yet know its power in this particular.

We will now examine the chemical reactions of this solution and the resulting salts as above detailed.

First. Bichloride of platinum, added to the recent solution, remained entirely unchanged to view for fourteen hours, at the temperature of 58 to 68 Fahr. At this time the change was almost instantaneous, the clear lemon-yellow solution became suddenly discolored, assuming a brownish-black tint, and entirely opaque, from which the precipitated platinum (salt?) subsided at the end of one week.

Second Perchloride of gold was added to another quantity of the same solution in the same proportion; this remained unchanged for thirty-three hours, the temperature being about the same. This solution manifested a much slower process of decomposition than the preceding, and it was little more than an hour before it became entirely opaque. The precipitated gold subsided in about the same time as the preceding. During these periods both solutions maintained their characteristic colors up to the moment when absolute decomposition took place.

Third. A freshly prepared solution of pyrogallic acid was now added to another part of the solution of the ferric salt; the reaction was immediate, but in place of a precipitate we had a most beautiful violet purple, perfectly transparent, which remained unchanged in any lights and temperatures to which it was subjected.

Fourth. A freshly prepared solution of gallic acid was also applied to another portion, with similar results as in the last; the difference lying in the tint of the reaction, which with this reagent possessed much less of the purple than that with pyrogallic acid. No precipitate has separated at the end of forty days, nor is there any change in the color of their reactions. They may therefore be considered as permanent and characteristic.

Fifth. Acid phospho-molybdate of ammonia was the next reagent applied. On the addition of this reagent to the solution of the ferric salt, a fine, deep azure blue solution was produced; the color was probably molybdate of iron, for so far as color is our guide, it comported itself like the native molybdate of that metal; its transparency was probably due to the compound phosphoric salt resulting from the double decomposition.

Sixth. Another part of the solution was subjected to the action of ferrocyanide of potassium; with this salt no precipitate was formed after the lapse of eight days, in fact, no change of color took place after the addition of this reagent after that time.

Seventh. Ferridcyanide of potassium induced the characteristic tint of that salt when in combination with the soluble ferric per-compounds; this color remained permanent during the same period as the last.

Eighth. Solution of cautic potassa, added to the solution of the perphosphate of iron, produced no precipitate; the solution was a deep, rich brown, and transparent.

We have now gone through the principal reactions of the solution before the salt has been crystallized out; in the reactions which follow we shall confine ourselves to the salt precipitated with alcohol from this solution.

When obtained in this manner the crystals are acicular, colorless, and transparent, and after re-crystallization in vacuo, they seem unalterable in the air. When obtained by slow evaporation, continued until the mass solidifies, and by repeated crystallizations and washing with alcohol, they come out in tetrahedral prisms, with the angles of termination truncated; their crystallographic features, however, require further examination; the salt in this latter form has a very slight tinge of green, due most likely to some impurities which will probably separate in subsequent treatment.

All its solutions are now colorless and transparent, and so far as observed, do not appear liable to change while in this condition.

The following are a portion of the reactions which appear most characteristic of the crystalline salt when in solution.

Ninth. Pernitrate of mercury gives a voluminous, floculent white precipitate in the cold; on heating this precipitate in the solution, it begins to change color at 160 Fahrenheit. At this temperature the volume of the precipitate rapidly diminishes, and on raising the temperature to the boiling point, it passes into a light buff color, and is for the most part re-dissolved.

Tenth. Gallic acid produces no precipitate from the solution. The reaction of this reagent is peculiar; it produces a rich red purple when the solution is cold; if a full equivalent of the reagent has not been used, the color is dissipated entirely by gentle heat, and the solution is again colorless. When a full equivalent of the gallic acid has been used, the color is proportionally deepened; on heating this to 180 Fahr., the color flies, and it becomes Madeira brown, clear and transparent. Caustic potassa in solution being now added, scarcely changes this tint.

If to this solution of the gallic acid and ferric salt a solution of the phospho-molybdate of ammonia be now added, and the fluid is warm, we obtain a deep green, dense precipitate, which immediately re-dissolves, the solution becoming for a few moments sea green, and changes in the course af an hour to a more or less deep oily brown color.

The very peculiar reactions of the gallic acid on this salt, and also (fourth,) led me to investigate more closely the habitudes it maintained to the other reagents, for the purpose of determining, if possible, upon what combination the varieties of tint from the use of this reagent were obtained.

Eleventh. The preceding solution with phospho-molybdate of ammonia present, was now treated with a few drops of solution of gallic acid. Immediately the tint changed to a bright caramel red, which was the color sought on account of its frequent occurrence in a variety of other reactions when other reagents had been used. This peculiar tint seems due to a chemical union of the molybdic salt of iron with that acid; if this caramel red solution is heated, it takes on a brownish tint, but still transparent, which change is probably due to the evolution of its ammonia.

Twelfth. Take the gallic acid reaction of the (tenth) experiment, and to this add acidulated phospho molybdate of ammonia, the result is a deep green; if to this reaction dilute potassa be added, a dense azure blue precipitate goes down, which in about six or eight hours changes back to its original color, and remains permanent.

The above details of the reaction of this salt are but additional examples of the inconstancy, not only of the hydrates of the phosphoric acid, but also of some of its chemical combinations; it is most clear that we are as yet unacquainted with the stable compounds of its persalts, and also the proto-compounds. If we examine the above reactions, we shall find that notwithstanding the salt in question is beyond doubt a true persalt, yet its chemical union is held only by the slightest affinity. Being satisfied of the latter fact, we now proceed to make some investigation as to physiological effects, and have thus far been corroborated as to its chemical composition.

Exp. 1. Eight grains of the dry salt was taken in the form of pill, two hours after a meal of mixed food, milk being used in place of tea or coffee for the succeeding twenty-four hours. The urine of digestion was examined four hours after the pills had been taken; no salt of iron was manifested in this excretion. It was again examined at the end of fourteen hours, and still no evidences of the presence of iron was detectable. On the following morning the urina sangninis was examined with the same result as before.

At the usual hour on this day the bowels moved easily. The fecal evacuations were of a tarry blackness, and of less consistence than usual. The evidence thus furnished proves that the salt had not been absorbed to any considerable extent.

Exp. 2. The same quantity of salt was now taken in solution of water, in doses of two grains each, at periods of three hours; at the end of nine hours the urine was examined, and the presence of iron easily detected with the gallic acid.

Exp. 3. Three days following this the same experiment was repeated with the same results, but with an increase in the urinary excretion. The fecal evacuations were not discolored. The salt did not induce any excessive thirst such as is common with ferruginous preparations when they are rapidly absorbed.

(To be continued.)

Editor's Table

An error in imposing the form in our last issue transferred a portion of the Editor's Table to the advertising pages. The matter thus disarranged is re-issued separately, (pages 77 and 78,) and accompanies this number, and can thus be placed in its proper position by our patrons.

Notes of and Progress of Cases in Surgery in the City.—The case reported on page 38, Vol. IV of this Journal, in which all the tarsal bones were removed for necrosis, on the first of October last, is entirely recovered. The patient has been at work for the last sixty days, and uses neither cane nor crutch; with the exception of a slight degree of weakness, the joint is apparently as good as before; there is no impediment in its motion.

The case of resection of the clavicle (by the same surgeon as in the above case, Dr. H. H. Toland,) made on the 18th of December last, has also recovered; the parts from which the necrosed bone was removed have filled up perfectly with new ossified material undistinguishable from bone. No inconvenience has resulted from the operation.

Dr. Toland performed the operation of lithotomy on a male child, three years of age; the case was successful. (Noticed in a preceding number of Journal.)

The same surgeon, on the first of February, removed the entire lower maxillary of the left side, and one half of the remaining bone of the opposite side, for necrosis. The patient (a mulatto) is doing well, and bids fair to suffer little deformity. At this date, March 25th, he is fairly recovered. As the case is to be published in full, we shall omit further remarks upon it.

[The above cases should have appeared in our last number, but were overlooked.]

Dr. Douglas, of this city, injected a spina-bifida with solution of iodine, on a male infant seven weeks old. The plan adopted was that proposed and used by Prof. Brainard, of Chicago.

The lesion in this case is lumbo-sacral, and nearly three inches in diameter; its complications are paralysis and hydrocephalus. The child had thirteen convulsions within the four weeks preceding the operative measure, which was first practiced on the fourth of March. No convulsion or other unpleasant symptom followed the use of the injection.

Up to the 11th of March there were some improvements in the intensity of the symptoms which had previously existed. The tumor had now again refilled, and the protuberance of the anterior fontanelle was as great as before; the clonic spasm still persisted, and the extra pronation of the hands was little if any better. The infant had no convulsions after the first injection until this date. The tumor had now assumed its former dimensions.

The attending physician (Dr. Douglas) determined to perform the second operation on this date; (seven days elapsing from the first;) before injecting the tumor, moderate pressure upon it brought on a violent convulsion which lasted four or five minutes. It was now treated as before, and as soon as the tumor at the fontanelle showed signs of subsidence, the iodine injection was thrown into the lumbo-sacral sac. No unpleasant effects followed its immediate use.

From that period up to this date, March 25th, there has been a general and marked improvement in all the abnormal symptoms of the case. The extra pronation of the hands has ceased, the strabismus has disappeared, the cephalic region has not again been invaded with the excess of cerebro-spinal fluid, and the lumbo-sacral tumor is gradually diminishing in all its amplitudes. The head hangs more natural and erect, the tendency of falling back being unobserved except when the infant sleeps. The persistent tendency to clonic spasm still remains, and there is little if any amendment in the paralysis of the lower extremities.

The progress of the case thus far is satisfactory, and much better than to let them die without an effort to save. If Dr. Douglas saves (this very unpromising case in the beginning) his case, he will have accomplished what some of our best surgeons have failed in, and it will be the first successful case treated on this coast, and, under its present features, he has fair grounds of hope. We congratulate him on his success thus far. We shall watch this case with interest, and report its progress hereafter.

DR. TOLAND, on the 6th of March, removed an enormous enchondroma from the left side of the body; the tumor occupied the entire space from the nipple to the umbilicus, and extending a little beyond the median line, thence from these points laterally to the axillary region above, and below on a line with the umbilicus, posterior to the arch of the ribs. Its vertical depth was sixteen, and its lateral measurement, twenty-six inches; its weight, eighteen pounds.

The disease had its origin in the costal bones, and had involved and destroyed all the cartilages and ribs from the fourth to the last: the pleura was also entirely involved upon that side.

The patient did well until the 20th, retaining all his faculties, and strength enough to move himself in any position in bed, until three hours before his death, which was sudden.

A post-mortem examination was made eighteen hours after death. The right side of the chest was first examined. About one half of the right lung was much collapsed and nearly bloodless, having a light buff color; the liver had protruded into the pleural cavity, pushing the diaphragm before it until it had reached a level near the space between the third and fourth ribs. The heart was normal, and contained few post-mortem coagula. The liver was involved in fatty degeneration; the gall bladder distended with bile. The stomach was enormously distended with air, as also were the intestines; the latter were spotted with plastic exudation, the result of peritonitis. A large piece of the enchondroma was still attached to the upper surface of the diaphragm on the left side. The parts now being well situated, the left side of the chest was now laid open. The lung of that side was found collapsed and much condensed; it was less than one fourth its natural size, and contained a trifling quantity of air; on making a section of this lung and applying pressure, a clear serous fluid oozed out. Both pleuras had become involved in the primary diseased condition. The spleen was supplemental, but otherwise normal. The kidneys were hypertrophied, and the commencement of fatty degeneration was clearly marked.

Death resulted in this case from peritonitis, and the meteorism which was thus secondarily induced.

The whole of the left pleural cavity was exposed for eight days, yet the patient did not suffer from any impediment to the respiration greater than existed prior to this period, and but little more than was present prior to the operation. For the last eight days his pulse was nearly normal, and when disturbed, the cause was always traceable to some indiscretion either in the administration of food or medicines. After the immediate effects of the operation had passed by, the patient rallied as easily as he or another would have done from some of the smaller operations. It is a singular fact, but none the less true, that the patient did not suffer from febrile disturbance after the operation; the tongue was always moist, clean and natural in appearance, and the appetite good.

BROMIDE OF IODINE IN THE TREATMENT OF DIPHTHERIA.—It is with pleasure that we republish from the *American Medical Times*, the paper of Dr. Metcalfe on the use of Bromide of Iron in the treatment of Diphtheria, and we would particularly direct the attention of practicing physicians to the means used and the effects which followed. We do this for the reason that in 1847 we treated the specific form of disease known as "black tongue," with a similar remedy, and had most marked success with its use in that anginose affection at that time. The prevalence of that malignant form of sore throat at that period will be remembered by many physicians in and about New York, and the great extent of country over which it traveled during two years. In the counties of Westchester, N. Y., and Fairfield, Conn., the disease was particularly severe, very few recovering from its attacks.

The rey of made use at that time as a *local* application only to the diseased parts, was such as is known by the name of "quickening," and in use by Daguerrean artists, and is a bromide of iodine. We regard it as an excellent antiseptic.

HEALTH AND MORTALITY AMONG THE U. S. TROOPS STATIONED ON THE PACIFIC COAST.—The total number of officers and soldiers on duty in the Department of the Pacific during the month of January, 1861, was 3301, constituting the garrison of 24 posts.

On the 31st of December, 1860, there remained on the sick report, 266. The total number taken sick or received into hospital during January, 1861, was 599, making an aggregate of 865. Of these, 625 were returned to duty, 3 were discharged on surgeons' certificates, 2 died, (1 of typhoid pneumonia, and 1 of phthisis pulmonalis,) leaving 235 on the sick report.

The cases occurred among the following classes:—Fevers, 27; diseases of the organs connected with the digestive system, 92; of the respiratory system, 149; (131 cases of catarrhus;) of the circulatory system, 2; of the brain and nervous system, 22; of the urinary and genital organs and venereal affections, 56; of the serous exhalent vessels, 1; of the fibrous and muscular structures, 47; abscesses and ulcers, 31; wounds and injuries, 85; diseases of the eye, 11; of the ear, 4; of other diseases, 62.

SURGICAL.—A day or two since we picked up the *Morning Transcript* of March 18th, published at Nevada, and found an article under the above caption. We at first thought the article one of those little jokes sometimes played off on "items," but it really bears all the resemblance of being a serious statement. We presume, however, the parties named "had nothing to do with and did not know of the publication," as is usual. We give the article as it appeared:—

> "*Surgical.*—The operation of tying the right external iliac artery, in the middle, *preparatory* to an operation for aneurism, was successfully performed on the 7th inst., at the Nevada Hospital, by Drs. R. M. Hunt and H. H. Wickes. The *aneurism* — a large one, with sufficient capacity to contain a quart of blood — *was removed,* and the patient is doing well. Chloroform was used, and the entire operation was safely and neatly performed in less than five minutes. To the best of our knowledge this is the first time this delicate surgical feat has been attempted in California. The patient is Andrew Omrick."

Now we think that the above speaks for itself, and we think it doubtful if their names appear in Gross's Biography of Surgeons of the United States. And we think also that it would redound more to their credit if such display of rank ignorance of surgery and the surgery of this State were shielded from the gaze of the medical world; we blush for them. If these men were at all posted in our home surgery, they should have known that the external iliac has been tied *only seven* times in this city, and in no case "was the aneurism removed," as surgeons here and abroad are content with tying the vessel. We think Mott, Velpeau, and Nelaton may here learn a point which before to them was unknown. (The italicised points in the extract are ours.)

NEW SERIAL.—After having carefully examined the Epitome of Braithwaite, compiled and recently issued from the press by Mr. Wells, and knowing also the admirable capabilities of Mr. Evans in producing a creditable publication, we are in no manner hesitant in bringing before the medical public of this coast a notice of the new serial which is now being issued from the same compiler and publisher. Any one who has seen the first can form an idea of the character and style of what the "Summary" proposes to be; if the latter fulfills the wants of the profession in recent medical literature as perfectly as the "Epitome" has done for the past, the physician will always have at his elbow a convenient, reliable, and valuable work, to which he may readily turn for any facts touching his professional requirements, without the trouble and vexation of wading over scores of pages of useless verbiage, and tiresome, half meaning details.

As its title indicates, the "Summary" we hope will fill that gap in our literature which has so long been desired; if the compiler but confines himself to the *facts only* of the subjects he may select for his work, he will have rendered to the profession a work for which they will bless him in all time to come.

In our advertising pages will be found the announcement of this new serial, and to its perusal we would direct the attention of physicians on this coast.

As there seems to be a desire manifested to know where these books may be obtained in this country, and as the publisher is perhaps unacquainted with our book-vendors on this coast, we would suggest to him as agents here who have the most extensive range of trade in medical works, the names of A. Roman & Co., and H. P. Wakelee, of San Francisco.

WE have just received from A. Roman & Co. as we go to press, Vol. 13th of the Transactions of the American Medical Association. Also, the Fiske Fund Prize Essay on Diphtheria, by Mr. Slade. Both came too late for review in this number of the Journal; we will give them due notice in our next. A. Roman & Co. are up to time in these matters, and we return them our hearty thanks for this new obligation under which they have placed us.

ON DIPHTHERIA. By Edward Headlam Greenhow, M.D., Fellow of the Royal College of Physicians, &c. New York: Baillere Brothers, 440 Broadway. 1861. For Sale by H. P. Wakelee, corner Sutter and Montgomery Streets, San Francisco.

On the appearance of any new epidemic, or an old one with new phases, there are usually an abundance of essayists who are generally seized with an epidemic *cacoethes scribendi*, and who from an intuitive obtuseness of intellect, commonly render occult that which with a little common sense might be made lucid. There is still another class who manifest a nauseating degree of impudence by striving to obtain a place among the literati and observers of our profession, by the publication of long essays of the *sayings* of other men, (for instance, *a la Slade*,) whose capacities they seem as incapable of judging, for the *ipse dixit* of their author very often makes it extremely doubtful if he had ever seen the disease of which he is speaking. There is no subject, in our opinion, upon which a man will so easily display his ignorance in regard to the nature of the disease as diphtheria, provided he has not met with a case that was genuine; and, if we have seen this malady, we are quite sure that most of those who have essayed upon it during the last two years are unacquainted practically with its nature.

There is one thing which in passing we would mention; we have never yet seen *six hundred cases* of this disease and the trifling mortality of *three deaths* only, nor do we believe any such statement, though it may have come from an Ohio professor.

We have perused with care the work of Mr. Greenhow, and are prepared to give it as our opinion that he knows the malady on which he writes, that he has *seen diphtheria*; it does not appear a matter of supposition with him, at least. A few who have written on the disease, have also, like Mr. Greenhow, met with the disease in its genuine form.

The work before us is divided into twelve chapters, and in a terse manner gives us the author's experience while investigating the propagation, causes, etc., etc., in an official capacity. He has not, in our opinion, said a word too much or too little; he gives you all the *facts* that came under his observation.

Chapter VII, which treats on the communicability of diphtheria, is well worth the price of the entire book. We feel that we shall sleep with an undisturbed conscience when we recommend this work to the notice of our medical friends throughout the State.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late John W. Francis.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITARATURE. In addition to such resume will be embodied contributions from eminent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the Summary of Medical Sciences will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "The Epitome"—and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. Wells, M. D.—Dear Sir: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage and can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economise their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE

Pacific Medical and Surgical Journal.

Selections.

Clinical Report on Pneumonia, based on an Analysis of 133 Cases.

BY AUSTIN FLINT, M.D.,

Prof. of Clinical Medicine and Medical Pathology in the N. O. School of Medicine.

PROFESSOR FLINT'S clinical records, for the past twelve years, contain 133 cases of pneumonia, (exclusive of cases in which the patients were under five years of age,) 49 of which were observed in the Buffalo Hospital of the Sisters of Charity, (1848–1859;) 53 in the New Orleans Charity Hospital, (1858–9 and 1859–60;) 11 in the Louisville Marine Hospital, (1853–4 and 1855–6;) and 20 in private practice, (1851–1860,) mainly at Buffalo. The plan of analysis has reference to the ages, occupations, and habits of the patients, the circumstances connected with the causation of the disease, etc. Upon each of these points the statistics recorded by so reliable an authority on the subject of thoracic affections, are so well worthy of permanent record, that we here make an abstract of the valuable information which the paper contains.

I. *Age.*—Pneumonia has no predilections for any particular periods of life. The number of cases occurring at different ages is sufficient to show that no period of life is exempt from it.

II. *Sex.*—The male sex is much oftener affected than the female — of eighty cases in hospitals and private practice, but ten being females.

III. *Occupation.*—It is not produced directly by any particular occupation; occurs chiefly among persons whose callings involve muscular exertion and exposure to the weather. Occupation noted in eighty-seven cases, exclusive of female patients—fifty-two of these were laborers. Occupations of the remainder of a kind to involve, more or less, exposure to the weather.

IV. *Causation.*—It has no pathological connection with periodical fever. Other pulmonary affections do not predispose to it; some, as asthma, emphysema, and chronic pleurisy, appear to afford a protection against it; occurs, but not frequently, in those affected with organic disease of the heart; may be produced, traumatically, by external injury, or the passage of a pistol-ball through the chest; not one of the secondary affections referable to degenerative disease of the kidney. May not infrequently be traced to some exciting cause, as unusual exposure to cold and wet, but generally occurs when no exciting cause is apparent; is oftener developed abruptly than in a gradual manner.

V. *Comparative frequency of cases of the disease at New Orleans, Louisville, and Buffalo.*—Cases not as numerous at Buffalo as at Louisville, and by far more frequent at New Orleans than in the other two places. At Buffalo cases occur in January, March, and April, much more frequently than at other parts of the year; at New Orleans, more numerous in November and December than in any other of the winter months; and of the comparatively few cases observed at Louisville, three-fourths occurred in January.

It would be interesting to see if these irruptions of pneumonia are connected with any uniform meteorological changes, but the data for such a comparison are not at present available. Still another fact leading to the conclusion that pneumonia is determined by external causes, is its occasional prevalence as an epidemic in southern and southwestern portions of our country, especially among the negro population.

VI. *Seat of the disease and extent of lung affected.*—Results in 121 cases show the almost invariable extension of the inflammation over at least a lobe of the lung; that the most frequent variety of lobar pneumonia is that in which the inflammation extends over the whole of the right lung, (37 cases) This would not have been expected, and would not be the fact were it not for the tendency of the disease to extend over the whole of the right lung being greater in New Orleans and Louisville than in Buffalo. Next in order of frequency is that variety in which the lower lobe of the right lung is alone affected, (29 cases.) And at Buffalo the latter is the most frequent variety.

These results, however, show that the cases in which the disease is limited to the lower lobe of the left lung, (25 cases,) are nearly as numerous as those in which the lower lobe of the right lung is alone affected. This would not have been expected, the common belief being that the lower lobe of the right lung is much oftener the seat of pneumonia. Inflammation seated primarily in the lower lobe of the left lung rarely extends over the whole of that lung, (9 cases.) The lower lobes of both lungs (double pneumonia) are rarely affected, (7 cases.)

Pneumonia very rarely attacks primarily the upper lobes, and oftener the upper lobe of the right (8 cases) than the upper lobe of the left lung, (3 cases.) When the whole of either lung is affected, the liability of extension of the disease to the opposite lung is excessively small.

VII. *Complications of Pneumonia, and the Occurrence of Gangrene and Abscess.*—1. *Pericarditis and Delirium Tremens* were complications oftenest observed, each occurring in 8 out of 133 cases. The latter is simply a superadded affection, generally attributable in part, or entirely, to discontinuance or diminished use of alcohol after the attack of pneumonia. Six of the eight cases of pericarditis and three of the eight cases of delirium tremens were fatal. These results show the gravity of pneumonia complicated with pericarditis, but recovery may take place even when, in addition, the inflammation of the lung eventuates in abscess.

Exclusive of pericarditis and delirium tremens, complications of pneumonia are by no means common — a remark applicable to New Orleans, Louisville, and Buffalo; but complications exist more often at New Orleans and Louisville than at Buffalo, and consequently greater gravity of the disease.

2. *Gangrene and Abscess.*—In four cases existence of abscess was ascertained; may have existed in some fatal cases in which it was undetermined, the bodies not being examined after death. The pneumonia eventuated in gangrene of the lungs in one case only.

VIII. *Fatality and Duration.* 1. *Fatality.*—In 133 cases there were 35 deaths, a fatality of a fraction over 26 per cent. Proportion of fatal cases considerably larger at New Orleans and Louisville than at Buffalo, the ratio being at the latter place a fraction over 17 per cent.; at New Orleans, a fraction over 32 per cent.; and at Louisville, a fraction over 63 per cent. Of the 35 fatal cases, 16 were either complicated or associated with other important affections.

The proportionate fatality in complicated cases was 19 in 112, or a fraction under 17 per cent. Pneumonia uncomplicated and not associated with any other important affection, if limited to one lobe, is not a disease dangerous to life, since there were but two examples among the 133 cases analyzed.

Under this head arise four questions:—

a. *Of complicated cases what proportion were fatal?*—Of the whole number in which other affections became developed in the course of the pneumonia, (21,) 11 were fatal. Of 7 cases in which pulmonary tubercles coexisted, recovery took place in all save one.

b. *In how large a proportion of cases in which inflammation extended over more than one lobe did death take place?*—Of 11 cases of double pneumonia, the number of deaths was 8; of 57 in which it extended over two or more lobes, 19 died, the proportion being exactly one-third. The fatality is thus seen to be greatest in double pneumonia. Next in order are cases in which the whole of the right lung is affected. The fatality is strikingly less when the whole of the left lung is affected, being only as one to nine.

c. *Does age exert any influence on the fatality of this disease?*—In the largest number of cases in the whole collection the ages were between 20 and 30, while in the largest number of fatal cases they were between 30 and 40. Age does exert an influence on the fatality, the liability to a fatal result being greater in proportion as patients approach the age of sixty — this collection containing no examples of a greater age than sixty years.

d. *Does intemperance exert an influence on the fatality?*—It is probably true that habits of drinking were noticed in a large proportion of the cases in which they existed, than the absence of these habits in the cases in which the patients were temperate. Hence the results do not fairly exhibit the influence of intemperance.

2. *Duration.*—In 30 cases the shortest duration from the date of the attack to the time when the patient could be pronounced convalescent was 5 days, and the longest 23 days. The mean duration was a fraction over 12 days.

In 14 of the fatal cases the shortest duration from the date of the attack to the time of death was 3 days, and the longest 20 days. The mean duration was a fraction over 10 days.

The duration in hospital cases, from the date of admission to the time of discharge, varied from 4 to 70 days. The length of stay in hospital, however, in a series of cases, does not show the length of time that the patient was necessarily detained by the disease.

IX. *Treatment.*—The objects of treatment have been the palliation of symptoms, placing the system in a condition of tolerance as regards the disturbance caused by the local affection, and sustaining the vital powers so as to obviate a tendency to death by asthenia or exhaustion, and to promote a speedy and complete recovery.

1. *Points of inquiry in regard to treatment.*—The proportionate fatality in cases in which different therapeutical measures were employed, the duration of the disease in cases differently treated, the immediate apparent effects of remedies, the almost impracticability of arresting pneumonia, and its intrinsic tendency to death or recovery, when left to itself—*i. e.* without treatment.

2. *Progress without treatment.*—A few cases in this collection illustrate the favorable progress of the disease and recovery without medical treatment, and even under most unfavorable hygienic circumstances. Recovery, favorable progress of the disease, and a brief duration, even if an entire lung be affected, do not necessarily constitute evidence of the curative efficacy of any plan of treatment which may have been pursued.

But, on the other hand, taking into view the fact that in only two cases in which the disease was uncomplicated and limited to a single lobe, did it prove fatal, a considerable number of fatal cases, when no important complication existed, and the disease did not extend to two or more lobes, should be considered as furnishing good grounds to suspect that the treatment pursued contributed to the fatality.

3. *Remedial measures.* a. *Blood-letting.*—So far as any conclusions are admissible from the facts, they show that bleeding did not prevent extension of the disease to the entire lung, which occurred in 5 of the 12 cases; nor the affection of the lower lobes of both lungs, which occurred in 1 case; nor the development of delirium tremens, which occurred in 1 case; nor pericarditis in 1 case.

It did not diminish the fatality, which was at the rate of 36 per cent., being considerably larger than the rate in all the cases, (26 per cent.;) much larger than that at Buffalo, (17 per cent.;) somewhat larger than at New Orleans, (32 per cent.;) but falling below the rate at Louisville, (63 per cent.)

The analysis of cases in which blood-letting was employed furnishes no evidence that this measure affected, either favorably or unfavorably, the progress of the disease. In some of the cases it appeared to afford relief.

The longest duration of these cases, from the date of the attack to convalescence, was 30 days; and the next longest 15 days. The shortest duration was 9 days, and the next shortest 11 days. The mean duration was a fraction under 15 days. The mean duration of stay in hospital was a fraction under 25 days. The average duration from the attack to convalescence is exactly the same as in the aggregate of the other cases mentioned here, viz., a fraction over 12 days.

b. *Tartar emetic* was prescribed in 12 cases, in small doses, (gr. 1-16 or 1-8,) and nearly always given in conjunction with opium or the sulphate of morphia in small doses. Palliation of certain symptoms was alone looked for through its sedative influence on the circulation and nervous system. It is fair to presume that the antimony exerted in several cases a certain amount of palliative influence. It was not given under circumstances likely to render a depressing remedy injurious, either directly or indirectly, by conflicting with supporting measures.

c. *Sulphate of quinia* entered more or less into the treatment in 32 cases; in 9 in doses of gr. ij, three times daily, generally in conjunction with opium in small doses, brandy, and sometimes carbonate of ammonia; in nearly all of the remaining 23 cases, in doses of gr. v, three times daily, continued for a variable period. Of the 23 cases, 3 only were fatal; all those which recovered, save three, were uncomplicated, and the inflammation was limited to a single lobe in all the other cases save one.

It is doubtful whether any inference is to be drawn from the fatality, except that the sulphate of quinia did not exert an unfavorable influence on the termination of the disease. The immediate apparent effects were, in several instances, favorable in a marked degree; the pulse, in several cases, diminished in frequency notably under its use, a corresponding reduction in the frequency of the inspirations sometimes taking place and sometimes not.

d. *Opium.*—Opiates entered more or less into the treatment in 100 cases, and were either the only, or the most important, remedy in 49. In 46 of these 49 cases, the sulphate of morphia was given in doses of gr. 1-4 or upwards, or opium in doses of gr. ij or upwards, every 4 or 6 hours. Of the 46 cases treated with full doses of opium, 11 were fatal, a fraction over 23 per cent. This is somewhat under the fatality, in the whole number of cases analyzed, which was a fraction over 26 per cent.

So far as any conclusion from the fatality is admissible, it is certainly favorable to the treatment of the disease with full doses of opium, as compared with other methods of treatment pursued in the cases collected by Dr. Flint. Among the cases treated with full doses of opium, ending in recovery, in 12 the inflammation extended over a whole lung, or 30 per cent.; while the proportion in 110 cases treated by different methods, and including fatal cases as well as those which recovered, was only a fraction over 31 per cent.

Full doses of opium, however, do not afford a protection against the extension of the disease beyond a single lobe. In 22 of the 35 cases of recovery, the mean duration was a fraction over 11 days.

In the cases in which other remedies were added, (excepting alcoholic stimulants,) they were subordinate to the opium treatment. Dr. Flint has never observed more than slight narcotism produced by large quantities of the remedy, when judiciously given, a fact which shows that pneumonia involves tolerance of full doses of opium.

e. *Alcoholic stimulants,* given more or less freely, and continued for a greater or less period during the progress of pneumonia, produce no apparent unfavorable effects. The facts show that, given in conjunction with opium and nutritious diet, they affect favorably the progress of the disease and diminish its fatality, and are not contraindicated by the coexistence of pericarditis or organic disease of the heart.

In conclusion, it has been recently stated that the chlorides disappear from the urine during the progress of the exudation in pneumonia, and reappear so soon as the exudation ceases. Hence, it is considered by some that the absence of chlorides is evidence that the inflammation is extending; while, on the other hand, their reappearance is a test that the inflammation has reached the limit of its extension. The conclusions arrived at by Dr. Flint, from the examination of eleven cases, are, that the absence of the chlorides may be considered as evidence that the exudation is going on, but the presence of the chlorides does not constitute conclusive evidence that exudation is not going on.—*N. Amer. Medico-Chirur. Review,* from *Amer. Journal of the Med. Sciences.*

ARSENIC IN INDIGESTION.—In a paper recently read before the Academy of Medicine, by M. Germain, the author stated that remarkable success had attended his administering arsenious acid in chronic dyspepsia, and in some affections conjoined to or dependent on dyspepsia. He gives only a milligramme (one seventieth of a grain) per diem, in the form of a pill, taken just before a meal.—*Gaz. Hebdom,* and *Chem. and Druggist,* Dec., 1860.

On the Excretion of Creatine and Creatinine* in Health and Disease.

DR. EDWARD SCHOTTIN, of Dresden, has undertaken the laborious task of investigating the "Excretion of Creatine and Creatinine by the Urine and Effusions in the Healthy and Diseased Conditions of the Organism." Dr. Schottin has made use of his own urine, in order to determine the normal amount of creatine excreted. Under the use of a mixed diet, the quantity excreted could be seen only with the aid of the microscope: after strictly confining himself to vegetable food for thirty hours, no trace of creatinine was perceptible; while, after an almost exclusive use of animal food, he detected its presence to the amount of 0.086 of a milligramme. On taking half a milligramme of creatine, together with vegetable diet, no creatinine was observed.

The following cases of disease were investigated, with negative results:—

1. Tuberculosis of the lungs; the patient was much reduced in strength; there was high fever in the evening.

2. Tuberculosis of the lungs, with the formation of cavities; no fever.

3. Tuberculosis of the lungs and intestines; pleuritic exudation nine days before death. In the pleuritic and peritoneal exudations there was no creatine.

4. Granulated liver, with ascites and œdema of the feet.

5. Pneumonia, fourth day of the disease.

6. Bright's degeneration of the kidneys; general dropsy, without uræmic symptoms.

7. Progressive ataxy of the locomotive functions.

8. Paralysis of the arms, and weakness of the lower extremities, in consequence of chronic lead poisoning.

9. Chlorosis.

10. Spinal paralysis.

The cases in which creatine and creatinine appear as pathological secretions, Schottin then divides into two classes.

The first comprises those pathological changes in consequence of which the conversion of creatine and creatinine into bodies of a higher degree of oxydation is prevented; (as Bright's disease, with symptoms of uræmia.) The second class comprises, on the other hand, those cases in consequence of which the creatine is primarily increased by the degeneration of the striated muscles, (as typhus.)

As belonging to the first class, twenty-three cases of uræmia were investigated; in all of them a considerable increase of creatinine was observed. There were eleven cases of Bright's disease, with general dropsy; and at the various times at which they were examined, no increase of creatinine was found, and in most cases not a trace was observed.

The first series of cases furnished the following general results:—

1. The greater the disturbance of the secretion of the kidneys, the greater was the accumulation of creatine in the body.

2. The more urgent the symptoms of uræmia, the greater was the accumulation of creatine (creatinine?) in the blood.

3. The greater the secretion of the serous membranes, and the greater the œdema, the smaller was the accumulation of creatine (creatinine?) in the blood, and its elimination as creatinine in the urine.

Schottin remarks, further: "I have in these pages already repeatedly opposed the hypothesis of the conversion of urea in the blood into carbonate of ammonia, and of the consequent origin of uræmic symptoms. I am persuaded that the true reason of the occurrence of those symptoms is to be sought in this fact, viz., that by the obstructed secretion of urine in the kidneys, the general change of tissue is arrested in the brain and other parts of the body; and I have advanced the hypothesis that a lower grade of oxydation, thus determined, gives rise to the uræmic symptoms. I must still maintain my supposition, and I think I shall be able to offer satisfactory proof of it by means of the foregoing results. . . . . . . A substance like creatinine, which has such an unusually strong alkaline reaction, and decomposes even the salts of ammonia, can act only as a poison upon the organism.

"Perhaps, too, the different observations upon the secretion of ammonia in uræmia and typhus have resulted only from the large amount of creatinine contained in the blood, in consequence of which ammonia was set free from its combinations; a view that is the more probable when we discover, further, how great an increase of creatinine takes place in the muscles and urine in typhus, with or without a disturbance in the secretion of the kidneys."

As belonging to the second class of the above-named diseases, Schottin examined twenty-two cases of abdominal typhus. The increase in the secretion of creatinine, which constantly takes place in these cases, begins generally in the middle of the second week of the disease. The quantity of creatinine in the urine rises to 0·2–0·3–0·6 of a milligramme.

The increase of the creatine contained in the muscles was also shown by Schottin. In the substance of the brain no such increase was found.

The author then notices a comprehensive pathological, anatomical, and histological investigation conducted by Professor Lenker, which has led to the result that in abdominal typhus a very extensive degeneration of the striated muscles is found, and this causes a partial destruction of the muscular fibres. "It seems" (page 437) "that the peculiar mode of the destruction of the muscular fibres determines the increase of creatine and creatinine."

With reference to the therapeutics, Schottin then shows that every increased formation of creatinine, especially when complicated with disturbance in the secretion of the kidneys, or produced by this disturbance, must occasion an abnormal alkalinity in the blood, and a formation of free ammonia, as far as possible. The chief indication, then, he thinks, is to oppose this alkaline condition, and he considers the use of those acids as especially called for which enter the blood as such, as the tannic and phosphoric acids.—*Nor. Amer. Medico-Chirur. Review.—Correspondenz Blatt des Verein fur Gemeinschafleiche Arbeiten*, from the *Maryland and Virginia Medical Journal*, Jan, 1861.

On Pulmonary Osmose; or Researches on Absorption and Exhalation by the Respiratory Organs.

BY DR. LOUIS MANDL.

MANDL's extensive original essay being completed, we present our readers with a resume of his experiments.

(a) Animals breathing in water cannot live when a more or less quantity of saccharine matter is dissolved therein. The substances experimented with include the true sugars, as cane sugar, beet sugar, glucose, sugar of milk, and the non-fermentable sweet principles, as glycerin, mannite. The rapidity with which these solutions act depends on the relative quantity of the sugar in solution, the quality of the sugar, and the species and condition of the animal.

(*b*) Experiments were made with a great number of different species of aquatic animals. They all lived much longer in solutions of cane sugar than in those of glycerin of the same strength. Thus, fishes, of the size of twelve to fifteen centimetres, (from five to six inches long,) perished in a solution with the tenth part of glycerin at the end of forty minutes, and in a solution of sugar only, at the end of four to five hours, all other circumstances being equal.

(*c*) Very numerous experiments have demonstrated that death can be attributed neither to poisoning, nor to chemical action on the blood, nor to fermentation, nor to the absence of air, nor to the viscosity, but that it is solely and entirely due to osmose (endosmose and exosmose) exercised by the saccharine solutions.

(*d*) This action goes on through all permeable membranes, and especially through those of the organs of respiration. The non-fermentable saccharine principles possess an osmotic power greater than that of the true sugars; and this explains the greater rapidity of their action. In infusoria this action goes on as in a bladder; osmose at once acts through the whole extent of their very thin integument and body; they are observed first to diminish, (exosmose,) then to swell up, (endosmose,) until they sometimes even burst; but the osmotic action going on over this whole extent is in all cases the cause of their rapid death. In animals of higher development, where the thickness of the teguments limits osmose principally to the gills, the blood is seen to thicken in the gills, and circulation to be arrested by exosmose of the liquid parts. The circulation in the lung of a frog can also be arrested over a limited space instantly with a drop of glycerin, and in a few minutes with simple syrup.

(*e*) Endosmometric experiments were made with animal membranes, (pericardium,) vegetable, (collodion,) and mineral, (unglazed porcelain,) to determine the solid constituents of the blood that pass into the saccharine liquid. It has been proven that the salts of the serum pass first, then albumen, then coloring matter.

(*f*) Development is equally arrested by saccharine solutions, as was proved by the experiments made with muscular tissue macerated in saccharine solutions, and those on fecundated eggs of fishes.

(*g*) Many physiological and pathological phenomena (to which we in this *summary* can, however, but cursorily refer) are referable to osmose exercised by saccharine solutions. Thus, the thirst excited by ingestion of sugar, which absorbs the water of the tissues with which it comes in contact; the antiseptic and preserving virtues of sugar, by the arrest of developments of organisms; the digestive power of small quantities of sugar, which provoke the exosmose of the gastric juice; while large quantities introduced into the blood increase its osmotic power, which explains the use of sugar in the treatment of dropsies. The abundance of glucose in all the tissues of diabetic patients explains the constant thirst, the impossibility of any serious accumulation, and perhaps, also, by arrest of circulation, the gangrene sometimes observed in such patients. The use of glycerin as a local application is also founded on its great osmotic power. Accidental local tuberculosis, the diagnosis and treatment of which differ essentially from that of "diathesical" tuberculosis, is perhaps the result of sugar being carried into the lung; (but to this subject we will devote a new paragraph, and literally translate the author's language.)

(*h*) My studies on the etiology of tubercles (Mandl having previously demonstrated the fact that tubercle is not a specific product, but is produced from coagulation of secerned liquid substances of the blood,) have long led me to think that, as to their origin, there are two distinct kinds of tubercles:

the one depending on accident, the other on diathesis; the former only constitutes a local affection, the other, the symptoms of a constitutional disease. Experiments actually undertaken tended to produce local accidental tubercles, by the injection into the vesicles of the lung of osmogenetic substances, and particularly of saccharine matter.

While the limited number of my experiments imposes upon me great reserve, as yet, the result obtained give me hope of being able to prove, thus experimentally, the production of tubercles only localized in the lung, by accidental exudation (exosmose) of plastic matters, independent of all diathesis. These experiments will be published in due time. I will here only add, that they have led me back to the point of departure of the researches on osmose, and to the accidental production of tubercles in diabetes, where all the tissues are impregnated with glucose. These labors open a new field to therapeutics. They explain the cure, spontaneous or by art, frequently occurring in tuberculous affections of the lungs, not depending on diathesis, but purely local.—*Ib.*—*Arch. Gen. de Med.*, July and Aug., 1860, from *Am. Med. Monthly and N. Y. Review*, Nov., 1860.

A Fact for Medico-Legal Science.

BY SAMUEL R. PERCY, M.D., OF NEW YORK.

A SHORT time ago I was sent for to see one of my lady patients. She had a baby about four months old. After her confinement with this baby, she was up and about the room on the eighth day, attending to her two other children, who were very sick with scarlet fever. In consequence of this attendance she had not recovered her strength, and had the symptoms of prolapsus uteri and ulceration. Upon vaginal examination I found congestion and other difficulties, which I proposed to treat; but it was considered best both by her husband and herself to postpone the treatment, as on the next week he would leave home to be absent two or three months. On the Monday following, he left, but she did not call upon me until a week from the day following. Upon examination with the speculum, I found a mass of what I supposed to be muco-purulent matter proceeding from the os uteri. Wishing to ascertain its character, I immediately examined it with the microscope, and was surprised to find that it was semen; and that it contained living spermatozoa, and many dead ones. Communicating, in a proper way, my discovery, I questioned her as to the time of her last intercourse with her husband. It was on the Monday morning before leaving, nearly *eight and a half* days previous. I would stake my reputation on her honor.

Knowing that the zoospermes of the frog are frequently found living days after the animal's death, and even when it has been frozen, I can conceive no reason why human spermatozoa may not retain their vitality for some time, especially when protected by warmth, and placed in the situation where nature designed them. But to test this matter, I placed some semen in the lower part of a piece of moistened membrane, (such as is frequently used) and tied it, and placed it within the vagina of a mongrel slut; upon removing it on the sixth day most of the zoospermes were possessed of vitality, though there were many dead ones.

This fact may have an important bearing in a medico-legal way. Although the law gives ample margin, public opinion and jealousy look upon a pregnancy prolonged beyond the ninth month as of very questionable legality. We here see, however, from fact, the possibility of exceeding two hundred and ninety days.

There are some few physicians who believe that no conception can take place unless the semen is thrown by the male directly within the os uteri. It is needless to enter into a discussion on this question, for one fact to the contrary is as good as any number to prove its incorrectness. I can give three cases that have come under my notice within the past month, and many others, if necessary, of older date. A gentleman, whom I have known for some time, lately showed me his penis, which was sore with an herpetic eruption. The urethra terminated a little below where the frænum is in other persons, the gland bulging out quite prominently beyond it, and rendering it impossible either to urinate straight forward, or that the semen should be propelled in that direction; a small fold of frænum also, which appears to be a rudimentary affair, stretches across the orifice, making it necessary for him to be careful in urinating, or the urine returns backwards upon his person. This gentleman has three children, and two of them are like himself. I have seen, within the last month, two young females who are pregnant, with unruptured hymen. The hymen in both instances is dense and perforated, in one instance with two, and in the other with three small holes, not larger than a crow's quill. I do not mention these as being unique, for there are many on record.

In view of the late numerous experiments and discoveries of Mantegazza upon the zoospermes of man and other animals, this single fact which I have narrated is interesting.—*American Medical Times.*

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On the Value of an Anæsthetic Aid in Midwifery.

BY CHARLES KIDD, M.D., M.R.C.S.

In obstetric practice, the instances where the author has found the inhalation of ether or chloroform to be called for in an especial degree, and where anæsthetic aid has proved decidedly useful, have been cases of version, forceps, twins, convulsions, and crotchet operations. He has known chloroform used in puerperal mania, but its apparent effect is perhaps a coincidence, and not of a curative nature. The author referred the Society to his previous work on "Anæsthetics," where the result of 360 cases of midwifery treated under ether, and 1700 under chloroform, without accident from fatty heart, are described. Of these two agents, (though there have been twenty-five deaths from ether in general surgery,) he believes ether is superior to chloroform in relaxing rigid perinæum in labor, and otherwise acting on the muscle of the uterus, in version cases particularly. There have been no accidents from chloroform in about 30,000 cases of midwifery conducted with the aid of these agents. The mode of applying chloroform in the lying-in-chamber recommended was that which is adopted now by all the chief obstetric practitioners in Europe and America with whom the author has personally communicated on the subject. In midwifery practice, the error of using "mixtures" of ether and chloroform was explained, as a patient supposed to be inhaling a mixture is in reality inhaling pure ether, and there is a danger of confusion arising in mistaking one anæsthetic for the other. A new anæsthetic of chloroform and ergot mixed was also mentioned.

Cases of twins, where the second child presents with an upper extremity, "the pains severe and continuous, so that it is next to impossible for the accoucheur to introduce his hand to turn the child," were first described, where chloroform is invaluable, if there be no contra-indication of diseased heart, &c. The several indications in undilated os uteri for tartar emetic, liquor opii, or chloroform, from the result in actual practice, were explained. Next, those cases of twins were pointed out where at one particular stage it is judicious to allow an interval of rest to the uterus: here ammonia and ergot act like a charm; not that chloroform is injurious, but it requires to be given before or after ergot, and not at the same time. The author said that if, in journals, half the attention were given in fact to these points that is given to quack compounds of chloroform, all would be right.

In some cases of twins, so is it in some cases of "tedious labor;" the patient requires an interval of rest to renew reflex action and remove the effect of exhaustion, "false pains," emotion of a depressing kind, sleeplessness, &c. Thus, an inexperienced or constitutionally delicate young woman, with her first or second child, becomes alarmed, sleepless, &c., during her labor. Some indigestion, diarrhœa, or fright, has hastened her labor before its time. The first stage of labor has been attended with suffering, followed by fatigue. Here the pains are ineffectual in advancing the labor; but if there be no diseased heart or other contra-indication to anæsthetics, the author strongly advocates their administration, in the manner pointed out in the memoir.

How does sleep during labor differ from anæsthesia? Sleep, according to the author, occurs only when there is exhaustion of sensorial or muscular power; anæsthesia is best where there is no exhaustion; it is independent of sleep. The reflex power of Marshall Hall is the frontier or limiting line between sleep and anæsthesia; in sleep it is active, in anæsthesia absent. In tedious labor, the agony and pain will not permit the poor woman to sleep. Even opium is followed but by a tedious intoxication, without sleep, for hours; but chloroform is not an intoxicant, and acts at once and quite as safely. A patient in ordinary anæsthesia may be said to be doubly asleep. This is what is wanted for a short time in this class of labors, as thus reflex, sensorial, and muscular power are renewed. Emotion, also, is removed out of the way by chloroform sleep; and by a confident, cheerful demeanor on the part of the accoucheur, he may effect as much in two or three hours by chloroform as he might in almost as many days by delay, and opium, and waiting for nature.

Cases of versional delivery, with and without chloroform, were next minutely described and compared: cases especially of excessive sensibility of the os uteri and vagina, where the waters have long come away, and the uterus has closed with spasmodic force over the fœtal hand and arm. One well-known obstetrician has had 300 such cases; and he is every year more and more satisfied with the aid afforded by chloroform. The value of versional delivery and its *rationale* were also enlarged upon, as well as the much-to-be-desiderated probability of the abolishing of craniotomy, and of many cases where the forceps is unnecessarily and cruelly resorted to at present.

Next to version cases, the usefulness of chloroform in forceps patients was explained; and directions given as to the mode of administration. Chloroform in abortion cases at the fifth or sixth month, as advocated by Dr. Tyler Smith, was also dwelt on; and even in cases of placenta prævia, as administered by Professors Simpson, Denham, and others. Chloroform, as facilitating delivery by means of version, has been tried with advantage to anticipate hæmorrhage. Ammonia or brandy is first given, chloroform then administered, the feet brought down, and the remainder left to nature as the chloroform wears off.

The treatment of particular forms of puerperal convulsions by chloroform was entered into and explained, especially its usefulness in that form common in poor unmarried women—convulsions the consequence of mental emotion, or epileptic excitement; but in the class of cases tending towards, or the result of, apoplexy, and those with albuminuria, the use of chloroform or opium must be somewhat secondary, Dr. Kidd thinks, to the general treatment and general relief of the congested cerebral or spinal membranes. The author is not favorable to the use of anæsthetics in the simple hysteric varieties of the disease, hysteria generally being one of the contra-indications to the administration of chloroform.

The law of tolerance of chloroform in midwifery is not unlike that of the tolerance of ammonia, steel, bark, wine, opium, &c. All these medicines are of exceeding value where there is present shock to the nervous rather than to the vascular system. Chloroform is invaluable where there is exhaustion, debility, or shock, the result of great or long-continued pain; where there is loss of nerve force, or convulsions from excess of reflex irritability or pain, or mental emotion or excitement, &c. But chloroform is of less importance, as even wine, bark, iron, ammonia, &c., are of less use where there is exhaustion, the result of hæmorrhage, hectic, diarrhœa, exhausting suppuration, &c. Such diseases as chorea, asthma, whooping-cough, tetanus (not unlike puerperal convulsions,) are blotted out by chloroform, no matter how apparently weak the patient may seem; but it is different with debility from hæmorrhage or diarrhœa.

The author's further experience of chloroform, in operation cases of craniotomy, vesico-vaginal fistula, ovariotomy, enucleation of uterine tumors, &c., in which he has administered it largely, was, in conclusion, recited.

Dr. Tanner stated that he made it a rule always to take chloroform with him to every case of labor. When the pains become bad, he explains to the patient—provided he finds no objection to the employment of an anæsthetic that he can relieve her of all suffering, if she wishes it, by means of chloroform. Many patients are anxious to inhale: a few decline. During the present year, Dr. Tanner had only one case in his private practice which had caused him much anxiety; and in this the dangerous symptoms arose, as he believed, from the formation of a clot in the right side of the heart. This lady did not take chloroform. Dr Tanner observed that he was careful only to give this anæsthetic during labor pain, taking away the handkerchief or inhaler directly the pain went off. Stating the results of his experience briefly, he might say that he had never found chloroform do harm, but, on the contrary, much good; while it shortened the after-period of convalescence. He was careful, in cases where he found hœmorrhage, to give a large dose of ergot towards the close of the labor; but he did not object to the use of chloroform as well. In operative midwifery anæsthetics were invaluable.

Mr. Gervis referred to two cases of death from chloroform which had come under his notice in hospital surgical practice, in both of which the patients had previously been the subjects of delirium tremens; and in both the muscular tissue of the heart was found, after death, to be soft and greasy—a condition, indeed, which the result of many examinations showed to be tolerably uniform in most cases of death from delirium tremens. Mr. Gervis considered that these cases, though not obstetric, would tend to corroborate the view of the unadvisibility of administering chloroform in labor where the patients had been the subjects of alchoholism.

Dr. Barnes rose to disclaim all responsibility in the case of death after chloroform which Dr. Kidd had cited in connection with his name. The case had been related by Professor Faye, of Christiana. He (Dr. Barnes) had simply recorded it in an English journal. With respect to the use of chloroform in obstetrics. Dr. Barnes had found, in large experience of turning, that in many cases chloroform did not facilitate the operation. The influence of the brain removed, the excito-motory system seemed to act more violently, and sometimes spasmodically, the uterus resenting the introduction of the hand. Under ordinary circumstances, turning could not be regarded as a severe or painful operation. Delivery by turning was sometimess less painful than by the head. Again, in ordinary forceps cases, chloroform was certainly not required either to facilitate the operation or to allay pain. In operative midwifery, chloroform was most useful in turning where there was unusual difficulty, and in difficult delivery after craniotomy. It appeared to him incomprehensible how a special immunity from the perils of chloroform should pertain to puerperal women. To say that 40,000 women had taken chloroform in labor, without any mishap, was one of those vague statements which were entitled to little weight. He had himself given chloroform to facilitate the extraction of an adherent placenta, and had witnessed such exceeding prostration for three hours afterwards as to make him and another practitioner, who assisted, apprehensive of the instant death of the patient. He should be sorry to have it supposed that he entertained any prejudice against chloroform. He knew its value in certain cases, and gave it with care, and yet without timidity, and should not be deterred either by the bad effects he had witnessed or by those he had heard of, from giving it on proper occasions. He had been especially gratified with the beneficial effects of chloroform in cases of great nervous excitement, where the patients labored under a sense of dread of impending danger, and where even convulsions seemed to impend. He believed he had thus averted convulsions, and had certainly accelerated labor. He thought it worthy of inquiry why anæsthesia had made so little progress in Germany, where interference in labor was so much more general. It was also worthy of remark that English midwifery maintained its greatly superior success, notwithstanding the introduction of chloroform.

Dr. Gream said that, from some observations which had been made, it might be inferred that chloroform was but little used in midwifery in London; but he was sure that in no place was it more extensively employed, and he could positively state that amongst the upper classes it was almost universally employed, but with a general feeling of abhorrence of anything like intense insensibility. Surprise had been expressed by Dr. Barnes at the statement that so large a number of cases had occurred in which chloroform had been used in midwifery without any accident; but there appeared to be no difficulty in understanding this, for it should be remembered that it was never right, nor was it required, to carry insensibility so far as in surgery; and he (Dr. Gream) was sure that all the fatality which had attended the exhibition of chloroform in midwifery had arisen from some little want of care, or from a want of appreciation of its power. When anæsthesia was first introduced he had opposed, with others, the indiscriminate use of it, for he thought that at that time it was recklessly employed; and he believed that the present safe and efficient manner in which it was exhibited in London was the result, in a great measure, of the opposition offered to its former indiscreet and dangerous employment. It was a fact, that no death from chloroform in midwifery had occurred in London; but allusion having been made to two authorities "beyond the Tweed," it was right to state that *there* the same immunity from calamity had not been enjoyed; yet he felt sure that no agent could be more safe, and none more beneficial, than chloroform in midwifery when properly administered. He thought the author of the paper had unintentionally exaggerated the ill effects (if there were any,) and also the good effects, of chloroform. For three reasons he (Dr. Gream) thought chloroform most beneficial in labor: it removed pain, it rendered turning more easy, and it facilitated recovery; while the only detrimental effect was in protracted labor with pelvic contraction, where, by lengthening the intervals between the uterine pains and slightly diminishing uterine power, it might cause delay; but its advantages in all other respects made full recompense for this one drawback. In instrumental delivery of every kind it was most advantageous, and he had seen fewer cases of hæmorrhage since he had employed chloroform; indeed he had exhibited it to patients who had habitually been subject to this occurrence without hæmorrhage supervening — a fact worthy the attention of theorists, but nevertheless a fact. Each person had his own way of administering chloroform. He had tried several plans, but of late years he had employed a common tumbler, into which he placed the chloroform, together with a clean pocket-handkerchief moistened with about two drachms of the fluid. This quantity ought to last two hours or more. The patient's face projected over the side of the pillow, and the nurse or the husband (strictly under his direction) placed the tumbler under her nose and mouth at a distance of about an inch and a half or two inches, and thus the vapor rose perpendicularly towards her. She soon expressed a sense of giddiness; but the tumbler was still retained, until there was nearly an inability to answer any simple question put to her, and that should be the point beyond which no advance should be made. The chloroform should be now removed, and be replaced in a few minutes; and by thus being replaced and removed from time to time, while the pulse is felt and the respiration watched, a labor might be conducted through its stages without danger and without pain. He had never, during the number of years he had employed chloroform, had one moment's anxiety as to its effect upon any patient to whom he had administered it. The object of the handkerchief in the tumbler was to prevent any chloroform from running out or escaping on the bed if the tumbler fell over. He had found that any handkerchief or machine with which it was necessary to touch the face had the effect of rousing the patient, and thus did harm.

Dr. Druitt said that he believed that there were few labors in which chloroform might not be used with benefit at some stage or other; and that even when all the earlier stages go on easily and well, it is the greatest comfort at the final moment when the head emerges from the outlet. He did not believe that chloroform predisposed to hæmorrhage; on the contrary, he knew women who had flooded severely in earlier labors, when they had no chloroform, and who had been confined under chloroform subsequently without hæmorrhage. Neither does it seem to retard uterine action after the first inhalation or two, provided that it be used in the small doses which reason dictates; nay, it removes that obstacle to uterine action which is created by excessive sensitiveness of the orifice and passages, and which causes uterine action to be abortive. He knew a case in which, after a very slight inhalation, enough to tranquilize, but not stupefy, the head was driven through, with rupture of the perinæum,—that external sensitiveness having been allayed which is a bar to uterine action. In cases of protracted labor from rigidity, such as happen to robust women who marry rather late in life, the blessing of chloroform was incalculable. These were the cases formerly treated by bleeding, tartar-emetic, and opium; and in opposition to the author, both opium and emetic-tartar, in minute doses, were admirable adjuvants in the proper cases. No amount of torture equaled that which many women endured from excessive uterine action and quasi-inflammatory rigidity of the os, and chloroform agreed well with any other proper remedy that might be devised. The only reservation he would make was, that chloroform should be used in the minutest quantity, and the minutest quantity sufficed. Two drachms was enough in most labors, a few drops at a time, to imitate the normal condition of labor; that is, a short snatch of refreshing sleep at the end of every contraction, and a little drowsiness beyond. He had met with two cases in which a very small quantity of chloroform produced symptoms of angina pectoris, in women whose hearts were weak, and in such cases he thought that the risk ought not to be run.

Mr. Browning's experience was in favor of the use of chloroform, especially in complicated and difficult cases of midwifery.

Dr. Rogers was glad to hear Dr. Gream so candidly avow the alteration of his opinions on the subject of chloroform in midwifery. Dr. Rogers knew of one case, which occurred at Camden-town, in which death took place apparently in consequence of the employment of chloroform in midwifery. In his own practice he had never met with the slightest accident from its use.

Dr. Graily Hewett stated that the fatal case alluded to by Dr. Rogers, and which occurred some three years ago, was, as he had been informed, one in which the patient was laboring under alcoholism when the chloroform was administered; the gin-bottle was, in fact, found under the pillow after the patient's death. This case was therefore confirmatory of the opinion advanced by Dr. Kidd as to the danger of chloroform in such cases—an opinion also supported by Mr. Gervis's experience. With reference to the general question of the dangers of chloroform in midwifery practice, he considered that there could be no reasonable doubt that chloroform was neither more or less safe in cases of midwifery than in other cases. It was well known that in operations generally chloroform had not been proved always safe; and it was as reasonable to suppose that death might occur after the use of chloroform in midwifery as after the use of chloroform under other conditions, the result not being connected in any way with the special circumstance that the patient was in labor at the time of its administration One question—a very important one, as he considered—had not been touched upon by the various speakers, excepting in a very incidental manner—namely, the effect of the employment of chloroform in cases of puerperal convulsions. On the data furnished by various recorded cases, he had failed to arrive at any sufficiently general conclusions in answer to this question. The difficulty of establishing the relation of cause and effect as regards the action of medicines was universally admitted; and in reference to the supposed beneficial or other effects of chloroform in puerperal convulsions, the tendency of the evidence as yet adduced was not always uniform. In a case recently published in one of the American journals, the patient being affected with uræmic symptoms, the occurrence of puerperal convulsions was anticipated, and chloroform was given to ward them off. The chloroform did not, however, prevent the access of the convulsions, although it is stated that they were modified and lessened under its influence.

Dr. Tyler Smith agreed with nearly all that had fallen from the previous speakers in favor of chloroform in obstetric practice. He thought it might be laid down as a principle in regard to its employment, that besides its value in allaying pain, it was useful in all cases, especially in operative midwifery, where it was desirable to moderate excessive action of the uterus, and to promote dilatation and relaxation. He held, on the other hand, that it was contra-indicated in cases where there was deficient action of the uterus, as in feeble and tardy labor from inertia, and in cases where hæmorrhage was expected. He had seen it stop the course of labor midway, and he believed that post-partum hæmorrhage and retention of the placen a occurred more frequently after its use than without it. One good effect of the discussion on the present paper lay in the differences of opinion which had been elicited. The causes of these differences would be studied, and the truth brought out. It could not possibly be correct that chloroform relaxed the uterus so as to facilitate turning, and made it contract so as to increase the difficulties of this operation; or that it could both cause and prevent hæmorrhage. He had himself no doubt of its usefulness in difficult cases of turning. He had met with cases in which version had been accomplished by its aid, where without it the operation would have been utterly impossible. He had seen mania follow its employment, and he thought that in some cases the relation was that of cause and effect. He had also met with bad cases of rupture of the perinæum under its use. The patients were relieved from pain, but volition was not suspended, and under these circumstances, the violent and fearless straining efforts ploughed up the perinæum by the fœtal head during the expulsive pains. It was of very great consequence to lessen, as far as possible, the dangers attending this great and beneficent agent. The influence of fatty heart, alcoholism, and other conditions, in fatal cases, had been much debated; but there was another source of danger which so far as he was aware, had not been dwelt upon. He referred to idiosyncrasy. He had known patients affected to a poisonous extent by ordinary doses of ether or chloroform. He knew two ladies, in apparently good health, in whom a few drops of chloroform would at any time produce repeated faintings. He suspected, therefore, that some of the inexplicable cases of death from chloroform depended on idiosyncrasy, and before its administration it would be useful if patients were tested as to their tolerance of its effects.

Dr. Kidd, in reply, thanked the Society for their very flattering and kind estimate of the paper. One or two points had dropped out in the reading which perhaps might be supplied. He did not himself think in forceps cases chloroform is indispensable; but he furnished the usual directions for chloroform, whether before or after the blades were applied, &c. Chloroform, by facilitating versional delivery, will lessen the present number of forceps cases. The President, in his able summary, mentioned "idiosyncrasy" as a probably cause of death. This can scarcely be, as, in 100 deaths, about 40 of the patients had inhaled chloroform (two or three, or even in some cases ten times) previously without suffering from it. The word idiosyncrasy is vague, and would cause unnecessary alarm, which always does evil. Delirium tremens, "alcoholism," hysteria, might be substituted for idiosyncrasy. As to hæmorrhage cases and the use of tartar emetic with chloroform in undilated os, he differed from Dr. Druitt. The men of practice differed from the men of the pen. The views expressed by Dr. Barnes were also such as were held by no other practical man in Europe; that version could be effected better without than with chloroform. Mania from chloroform is a similar error; and as to heart complications, diseased valves, &c., this is also probably a mistake of one book copied into others. The respiratory system is, in reality, the point where accidents originate; but there has not been a single death from chloroform in midwifery practice.—*London Lancet*, March.

Digital Compression in Aneurism.—In a recent number of the *Gazette Hebdomadaire*, we find the statement that M. Bouvier communicated to the Paris Society of Surgery two cases of traumatic aneurism, cured by digital compression, by M. Mirault, of Angers. The first case was that of a man, twenty-three years of age, who perceived a small tumor gradually develop itself at the bend of the elbow, after the operation of phlebotomy. The brachial artery was compressed, and a cure was effected in thirty-one hours. The second case occurred in a child, nine years old, in whom the origin of the temporal artery had been wounded by the bill of a cock, giving rise to a tumor about the size of a crab apple. As it was impossible to control the artery between the heart and the tumor, direct compression was made on the swelling at different times, and it was discontinued during the night. A cure resulted in eighty-five hours.—*Nor. Amer. Medico-Chir. Review.*

Infant Alimentation.

BY M. A. BAINES.

SIR,—At the Bradford meeting of the Social Science Association last year, I had the pleasure of contributing to the Public Health Department a paper on the "Practice of Hiring Wet-nurses," showing the numerous evils which are involved in that system; my object being to prove that the cases are very rare in which a wet-nurse is really needed, and that the abuse of the practice must necessarily lead to very serious consequences, not only to individuals, but to the community at large.

This idea being accepted, a question naturally arises as to the best substitute for breast-milk in the case of hand-reared children. To that question I shall attempt to give a satisfactory answer. A few preliminary observations will be necessary.

In a paper presented to the Sanitary Section of the International Statistical Congress, which held its session in London this year, I pointed out the want of accurate information on the subject of Wet-nursing, and suggested a simple method by which figures might be obtained in order to show the extent to which the custom prevails in this country; such machinery being set at work, an important means will be available for collecting very interesting and valuable information on subjects of a kindred nature.

The practice of employing wet-nurses cannot be considered and inquired into without revealing many startling facts which are connected with the system. Among its most disastrous results may be regarded the fate of the wet-nurse's child, which is in most cases put out to *dry-nurse*, falls into ignorant or unprincipled hands, and, as a consequence, too often meets with premature death. Space does not permit me to enter into a consideration of all the *moral* evils of such a system, but it is enough to speak of the *indifference to infant life* which is thus fostered, and which is evidenced by the fact that a mother is induced, and too readily yields, to the temptation to sell her child's life for the temporary indulgence in ease and gain. Oh! let those who have any influence in this matter pause ere they help to sever those holiest and purest of earthly ties which Nature has intended, with wise purpose, should exist between a mother and her child.

In the paper on the "Statistics of Wet-nursing," I alluded to one or two subjects which, although not coming immediately under the inquiry therein indicated, nevertheless presents some significant features in relation to it, and for that reason deserve some attention here. I refer to the large number of infants said to be annually "still-born" in this country, and also to the system carried on with regard to children whose names are entered on the books of burial clubs.

With respect to the first-named subject, Lord Shaftesbury, in his address at Liverpool on Public Health, made the following statement—that no less than 60,000 "still-born" children are produced in this country every year; adding, that "it is a portentous fact, which demands the most solemn investigation."

I am not aware what idea the noble President connected with the fact to which he called attention with so much earnestness; probably his Lordship had in his view the unsanitary condition of things which it discloses. Certainly that is a very grave matter—one which may with advantage be inquired into. Why (it may be asked) should so large a number of individuals—so large a portion of the female population—fail to fulfill the natural laws of their being, and thus contribute to such an abnormal and astounding fact as that indicated in the high rate of the "still-born?" Again, how is it that so many mothers who give birth to living children are unable to afford them the maternal nourishment which is their birthright, thus depriving their offspring of the best chances of maintaining existence?

The latter subject was alluded to by Mr. E. Chadwick, at the International Statistical Congress. His remarks referred only to what takes place in Manchester; but it would be worth while to collect information on these points as regards every town and district in the kingdom.

These inquiries are serious enough in a sanitary point of view; but I fear they present another side still more painful and portentous; I allude to the criminal aspect, especially as regards the 60,000 "still-born." It is probable that more than half of that number ought not to have been so recorded. And to check the evil in future, the law must be brought to bear upon the system to which the evil is due. At present the great facilities afforded for the disposal of "still-born" children offer free inducements to infanticide, which crime is on the increase, and is, no doubt, perpetrated wholesale in some parishes and districts. Dr. Bachhoffner, the Register for Marylebone, has lately instituted inquiries into this matter in the district over which he presides. Some startling facts have been elicited, and the investigation is still being prosecuted; but from what has already transpired, there can be no doubt that some restrictive clauses are urgently needed in the Burial Act with reference to the disposal of infants said to be "still-born," such subjects having been hitherto enclosed in the coffins of adults without the payment of regular fees, and without requiring the production of a medical certificate.

It will be at once obvious how full of meaning are the foregoing facts in connexion with the subject of this paper, when I suggest that it would be interesting and instructive to know how many of the mothers of "still-born" children had, previous to the birth, decided upon taking up the vocation of wet-nurse. And, again, how many of the infants whose names have been entered on the books of burial societies, and who die prematurely, are children who have been put out to *dry-nurse* to enable the mothers to take places as "wet-nurses."

Although it was my intention to treat the subject of this latter strictly in its sanitary aspect, and to address my remarks more particularly to medical men, I have been almost unconsciously led into the consideration of other social questions of equal importance; and I have no reason to regret having entered upon the more extended view of the subject, because, in the first place, they are questions which must be interesting to all social reformers; and secondly, I think that those (I refer now to members of the medical profession) who would desire to aid the special cause we are about to consider, would do well to regard it, not only in its physical aspect, not only from what is termed a "medical point of view," but in reference to its moral and social relations and influences.

In a paper which was read in London last February before a medical audience, I advocated the use of vegetable or farinaceous substances, in combination with cow's milk, as a proper food for infants, from the earlies period of existence.

Hand-feeding has got into disrepute because it is in general so unsuccessful in its results; and as "convulsions" and other disorders, terminating fatally in childhood, are often traced, when properly investigated, to the improper use of farinaceous substances, a prejudice has arisen against that kind of food, and it is interdicted as injurious by medical practitioners; consequently the public, taking alarm without reason, look upon farinaceous food as little short of poison in its pernicious effects upon the infant constitution. This is a foolish and fatal error! Not less absurd, though far less mischievous, would it be to prohibit bathing altogether, because some reckless persons, ignorant of the art of swimming, plunge into the water, and are drowned. I am strongly convinced that it is not so much the kind of food that kills as the ignorant manner in which food given to infants is prepared and administered.

There are two extremes prevalent, both equally to be deprecated,—namely, the excessive use of farinaceous food, and its entire prohibition. I consider that to depend wholly upon animal milk is a most disastrous practice, and in many cases induces disorders which, if they do not always terminate fatally, set up a condition which predisposes to various ailments in more advanced childhood, and even in later periods of life. These disorders are rarely referred to the true cause, but are described as "constitutional," "developmental," and so on; when the truth is that the system, being deprived of the elements in its food necessary for growth and development, suffers from *defective nutrition*, and consequently has not power to carry on its processes in a natural and satisfactory manner. It would be curious to know how many of the deaths returned in the registers' reports under "Want of breastmilk," are those of children who were attempted to be reared (but in effect were starved) upon animal milk alone; I fancy the numbers would quite equal those of the children who die in convulsions from "over-feeding."

I cannot now enter upon the chemical and physiological arguments which I am prepared to advance in favor of my theory; I will only state that I believe Chemistry (as far as it is known to us at present) cannot be trusted in this matter. What I mean is this: that although we may learn by chemical analysis that cows' milk approaches nearly to human milk in its constituents and their relative proportions, that fact affords no satisfactory proof that animal milk contains in its elements or component parts the necessary qualities or properties suitable for the nutrition of an infant, so as to render that milk a safe substitute for breast-milk without the addition of other substances; indeed, *experience tells us quite the reverse.* And as to the physiological facts which have been brought forward by opponents to my views, I have explained at some length in another place, that I interpret those same facts in a manner to favor my argument. (Comparative anatomy does not teach me that *because* vegetable food is indicated as suitable for digestion in the case of the young of the animal creation, *therefore* the anatomical construction of the human stomach shows the same food to be unsuitable with regard to the human infant.) Chemical analysis may aid us in discovering truth, but I have said that it must not be trusted entirely; *experience* will prove a better teacher in such matters; for out of well-observed facts we may draw practical conclusions, and trace them with something like certainty to their respective causes. I am induced on this account to suggest (and I do so with much deference), that unless any medical practitioners can bring their *experience* to bear upon this question, they will reserve their remarks; for although I am anxious to induce discussion on the subject of this letter, I should be sorry for the cause to be prejudiced by the mere repetition of old objections, having no better authority than that derived from the dogmas which belong to *routine practice*, and based upon no solid nor tenable foundation.

If any medical man would undertake to conduct a series of experiments as to the value of farinaceous foods in the cases of children who may be depending entirely upon *artificial feeding*, such a practical experimentalist would perform a signal service to mankind. Let a fair trial be made under the direction and observation of the medical attendant, and let him report the result to the profession and the public through the medical journals, whose columns are always open to contributions which are calculated to benefit the cause of science and humanity.—*London Lancet.*

Congenital Dislocations of the Hip.

BY HOLMES COOTE, ESQ., F.R.C.S.

CONGENITAL dislocations at the hip-joint have of late years occupied so much attention, and been the subject of so many curative efforts, that a general account of the anatomical peculiarities of such cases must be both interesting and instructive, and this information is the more desirable because it has been affirmed that the joint is commonly found perfect in form, although the component pieces are separated, and that attempts to re-approximate the articular surfaces are indicated and have been successful.

We must be most careful in admitting such evidence; for many cases have been included under the head of "congenital dislocations of the hip," which have no right to be so denominated. It requires a practiced eye and hand to detect with certainty every form of hip accident in the adult. How much more so must it be in the young; how easily may it be overlooked in the infant.

Much valuable information on this subject has been collected by Dr. Gurlt, of Berlin. He remarks that in the majority of cases the head of the femur is thrown upwards on the dorsum ilii, sometimes upwards and outwards. The dislocation may be complete or incomplete, single or double; whether it is single or double depends on the changes of form in the pelvis. Congenital dislocations are often combined with other malformations.—(Beitrage zur Vergl. Anatomie der Gelenk-krankheiten, s. 455.)

In children who have not yet learnt to walk, we find in these cases that the head of the femur is either completely absent, and supplied by a flat surface lying on the trochanter, (Vrolik, "Tabulæ ad Illustrandam Embryogenesin," s. 106, tab. 84, figs. 1 and 2;) or the head of the bone is deformed and flattened in those spots where it comes into abnormal contact with the ilium, (Parise, "Archiv. Gener. de Medicine," ser. 3, t. xiv., 1842, p. 446.) The cartilaginous covering is irregular, and of different thickness. The changes in the acetabulum depend on whether the dislocation is complete or incomplete. In the former case, the acetabulum is either normal or flatter than natural; the flattening is remarkable when the head of the femur is deficient, (Paletta, "Exercitationes Patholog.," s. 171, p. 90.) In the latter, the rim of the acetabulum is compressed where the head of the femur rests against it, (Parise, op. cit.) In some cases, the fatty tissue in the acetabulum is hypertrophied, (Paletta, op. cit.) In others, the joint is distended with synovia, (Parise, op. cit.) The capsule is mostly normal, though occasionally distended by an increase in the quantity of synovia. The ligamentum teres is almost always present in infants, and elongated and thinned, but sometimes thicker than natural, (Parise Vrolik, op. cit.) The formation of a new joint is always incomplete. Tourtnal relates the particulars of a case of dislocation downwards and inwards, ("Ueber Augeborene Abweichungen in der Contiguitat des Knockensystems," Munster, 1834, s. 9.)

In older children, who have learnt to walk and have sustained the weight of the body, the head of the femur is flattened and deformed, as above stated, but also small and little developed; the neck of the femur is shorter than normal, and altered in direction—i. e., more horizontal; the acetabulum is flatter and smaller, and full of fat. The want of relation between the acetabulum and head of the femur is more marked, and the former is no longer fit to receive the latter. (Vrolik, "Essai sur less Effets Produits," &c., s. 454.) The capsule is generally thickened, but capacious, covers the head of the femur, and allows of some movement. The ligamentum teres is mostly present, but elongated and flattened. In some cases fragments of it alone remain adherent to the femur. The formation of a new joint is very incomplete; the impression on the ilium is faint. In most cases, the thickened capsule has to bear the weight of the body, as the bones are scarcely in steady apposition. (*Vide* Gurlt's "Beitrage zur Pathol. Anatomie Gelenkkrankheiten.") The direction of the pelvis is more oblique than natural. When both bones are dislocated there is anterior curvature of the spine; when only one, the spine is curved laterally, and the vertebræ are rotated.

Although I have not yet met with a case in which this deformity could be rectified, still it is pleasing to know that patients may gain the power of walking freely, and that the spinal curvature may be lessened by proper apparatus.—*London Lancet.*

Communications.

Exsection of the Inferior Maxillary Bone.

BY H. H. TOLAND, M. D.

To Dr. Deadrick, of Tennessee, is due the honor of the first partial exsection of the inferior maxillary bone, in 1810, although Dr. J. Carnochan, of New York, accords to Dupuytren the "*glory*" of this achievement as late as 1812. He was certainly the first European who performed this operation, and probably contributed more in establishing confidence in its practicability than any other surgeon, in consequence of the prominent position he occupied and the enviable reputation he had acquired in that branch of the profession. To an American should not only be accorded the honor of the first partial exsection of this bone, but also for its entire removal, which was accomplished by Dr. Carnochan at the New York Emigrants' Hospital, on the 7th of March, 1851, and which was not repeated until August 8th, 1857, in Paris, by Maisonneuve, a distinguished French surgeon. Notwithstanding the amputation of the entire bone was not attempted until 1857, partial exsections were both numerous and successful.

The writer removed half of the inferior maxillary bone in 1835, in a case of osteo-sarcoma, which involved this bone from the articulation to the symphysis. This case was reported at the time in the *Transylvania Medical Journal*, published in Lexington, Kentucky. In 1851 the patient was alive and in the enjoyment of good health.

CASE.

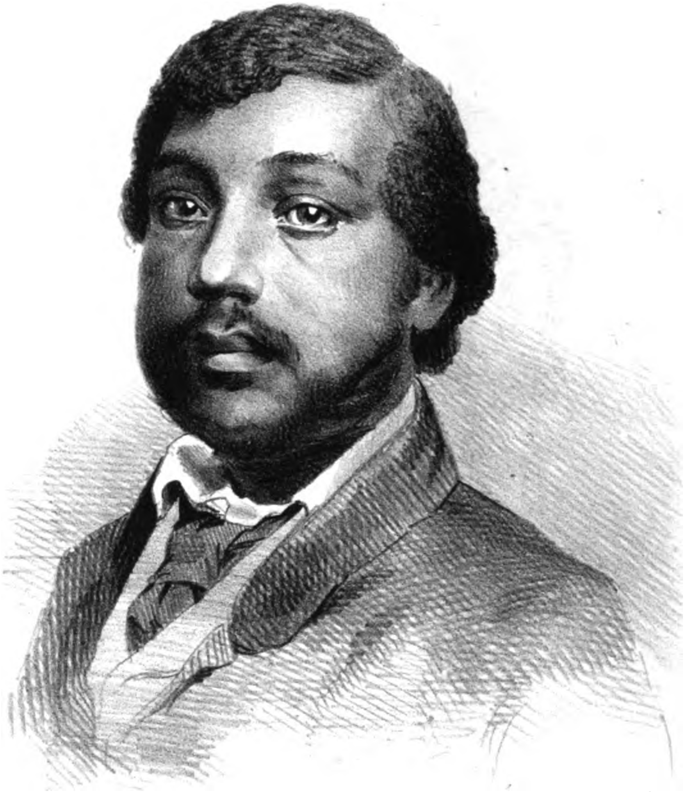
Wm. Leonard, a colored man, aged 27 years, and otherwise healthy, was attacked at Nevada, California, in October, 1860, with pain in the right side of the face, which being exceedingly violent, and failing to obtain relief from the remedies prescibed, was advised to have a molar tooth extracted on the third day, which served only to increase his suffering, until an abscess formed on the left side, and the contents escaped about an inch from the symphysis. A few days subsequently, similar openings were established on the right, one below and near the angle, and the other corresponded with that on the opposite side. From that period he suffered but little pain, although the purulent discharge was profuse both externally and in the mouth. This, with the incessant and profuse salivary secretion, exhausted his strength so rapidly that he was not only emaciated, but also œdematous, when he visited San Francisco about the 20th of January, 1861.

The teeth were all loose, pus escaped from the sockets, and denuded bone could be detected with a probe where it was accessible. Being confident that nearly the entire inferior maxillary was carious, and finding that no improvement resulted either from the use of tonics or a generous diet, I determined to operate before he became sufficiently exhausted to render success impossible, and to be governed during its progress entirely by circumstances, carefully preserving every particle of bone that presented evidences of vitality, which by being permitted to remain could aid either in preserving the contour of the face, lessen immediate danger, or facilitate an entire recovery.

On the 28th of January, 1861, assisted by Drs. Trask and Baldwin, and Messrs. Frisbee, Marquard, and Russell, the patient was placed on a cot, with his head considerably elevated, and, after the administration of chloroform, a grooved director, six inches long, was passed from the anterior to the posterior opening on the right side over the inferior margin of the bone, and the integument divided. This incision was extended from the symphysis above the angle, and the diseased bone exposed. After securing the facial artery with a ligature, and the hæmorrhage from smaller vessels being arrested, the incision was then extended to the ear on the opposite side, upon the inferior margin. The vessels were all ligated before any portion of the bone was detached, in order to prevent the loss of blood, which, in his prostrated condition, if excessive, might defeat the best directed efforts of the surgeon.

The external incisions being made and the hæmorrhage controlled, the bone on the right side was detached from the soft parts with a scalpel and blunt scissors, on its external surface, from the symphysis to the coronoid process. Finding that the periosteum still adhered, the bone was divided transversely at that point, and again about two inches below the angle, and the intervening part removed. Upon examining the mental portion of the bone, although the alveolar processes and at least half of the body was denuded, I determined to remove only so much as was deprived of periosteum, and should the disease extend to the remainder, that could be excised at a subsequent period, and during its presence it would preserve the contour of the

PLATES TO DR. TOLANDS PAPER.



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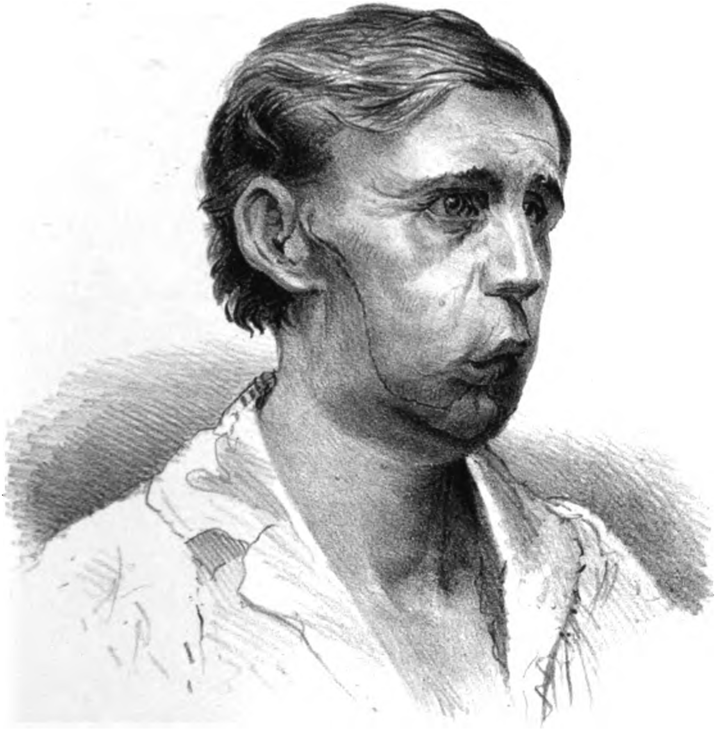
DR. TOLAND'S CASE.

Results of the fractional method of operation.

PLATES TO D^r. TOLANDS PAPER.



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PROF^r. CARNOCHAN'S CASE

The entire jaw removed at first operation.

face, prevent the retraction of the tongue, and facilitate the deposition of bony matter, so that but little permanent deformity would result. This being accomplished to the same point on the opposite side, the remainder of the bone was excised, including the articular extremity. In detaching the superior extremity extending from the coronoid process to the articulation, the blunt scissors were used, and great care taken to cut as near the bone as possible, which prevented the division of a single vessel of any importance after the external incisions were completed.

The bone removed on the right side extended from the coronoid process to within an inch and a half of the symphysis; the teeth, alveolar processes, half of the body of the mental portion, to the same point on the left side, and the entire bone from there to the articulation. The superior portion of the right side of the bone was permitted to remain, because it was not denuded, although the periosteum was inflamed, and if it could be preserved it would serve as a nucleus for the formation of new bone, and render the motion of the jaw much more perfect when that was accomplished, as the articulating surface and muscles were both preserved. During the progress of the operation, it became necessary to allow him to rest, and administer brandy and water to sustain his strength, which occasionally became exhausted from a slight loss of blood, in consequence of his debilitated condition.

After the entire surface of the wound ceased to bleed, it was carefully closed by seventeen points of the wire suture, and the water dressing applied. Although he suffered considerable inconvenience from the profuse secretion of saliva and the pain resulting from deglutition, his recovery was uninterrupted. On the tenth day some of the sutures were removed, and the remainder a few days subsequently.

March 20th, finding that the mental portion of the bone on the right side was detached, it was removed with dressing forceps, from the mouth, without any inconvenience; and about the first of April several small portions escaped from an ulcer on the side of his neck, which cicatrized so soon as the cause was removed. They evidently were detached from the articular extremity, notwithstanding the greater portion of that bone is healthy, as well as the lower extremity, and still answers a useful purpose. A firm and continuous solid substance, extending from ear to ear, which serves the purpose of bone, has been reproduced in two months and a half. The motion of the jaw is perfect, and he speaks as distinctly and fluently as any person who has lost the lower teeth.

The result obtained in this case when compared with that operated upon by Dr. Carnochan—as may be seen by referring to the lithograph—is decidedly in favor of the fractional method of operation, which I think is the one that should always be preferred; although less brilliant for the surgeon it is decidedly favorable to the patient. Not half the difficulty would have been experienced in removing the entire bone at once than was encountered in the operation described, and I leave the result to be determined by the professional reader.

Etiology of Renal Calculus and its Treatment.

BY J. B. TRASK, M.D.

RENAL calculus is a disease with which physicians are familiar, therefore to recount its symptoms here would be a superfluity alike uncalled for and unnecessary.

As to the etiology of the disease but little is at present known, and the hypotheses touching its origin are as widely varied as are the number of authors who have written upon it. In fact, our latest works on practice leave us in this particular where we stood a century ago. At the present time we are no further advanced in the rational treatment of this malady than were our forefathers, for the same methods for its relief now used were in full blast in their day and generation; this fact, therefore, can be taken in no other light than as a symbol of our present knowledge respecting this peculiar diseased condition.

To talk of diatheses predispositions, etc., etc., sounds well and looks well on paper, and is a soothing bolus to quiet the apprehensions of the sufferer and his friends, and it satisfies the inquisitive; it makes one appear learned to the mass, but when those terms are thus applied it is ordinarily done to mantle magnificent ignorance. But all this splendid pretension has not for decades of years assisted us to unravel the occult processes which lie at the base, and are the cause of this distressing malady.

In regard to the etiology of "renal gravel," there are many questions presenting themselves for answer in the course of its investigation, and very many which cannot be answered in a rational manner in the present state of our knowledge; and it is here that our want of positive knowledge becomes conspicuous. It is fortunate that a few points of light make their way through the darkness that enshrouds us, and although they do not develop all that we may desire respecting physical changes in the animal organism, still, when they are properly applied they explain, in part at least, the conditions that ensue, and the changes that are thus effected. The researches of Graham on diffusibility and osmose, and the experiments of Gierulf and Goll (under their tutor, Ludwig,) on the interruption of nervous influence and its effects on secretion and excretion, enables us to erect something in advance of a mere hypothesis upon this subject. Even with the demonstrations of these men before us, we hardly dare enter upon the confines of this pathless desert, and make an attempt to demonstrate even the proximate causes of these accidents, much less the primary physiological conditions inducing them, for fear of erroneous commissions perhaps greater than the omissions in those almost baseless notions which constitute the present doctrines on this subject.

As to climatic influences, that stereotyped cause which has so often been advanced to account for renal calculus and gravel, we cannot for one moment entertain a notion so illogical and crude; at all events, wherever else it may be thought to apply, here upon the east coast of the Pacific we shall object to its causal powers in either propagating or continuing this malady. It might answer for London, from whence we expect ere long to see a *climatic diathesis* issue. If we examine our climate with care, and the cases of renal gravel that are presented from different parts of our coast, (ranging from 30° to 52° north latitude,) we shall be struck with the remarkable uniformity in the proportional number of cases to the aggregate population anywhere within that range, and there appears no manifest difference whether the cases arise on the coast-line or in the interior; this being the fact, it becomes difficult to conceive how climatic influence so diversified as we possess, with such marked intermediate grades of temperature and hygrometry, should not produce a much greater number of patients in one place more than another; it has not fallen to our lot to find it more frequent at Marysville and Sacramento than at San Francisco. If climatic influence proves anything with us, it is simply this, that as an inducing cause of renal calculus it has no foundation in fact. Therefore this attle-yard into which nearly everything else has been piled, is not sufficiently capacious to hold this assigned cause of lithiasis, together with the cumbrous nonsense already there deposited.

If we would attain the cause of this malady either in a primary or proximate point of view, it will become necessary that we look beyond this mere hypothesis of climate, and seek the solution of the question in the systemic conditions which may be present in the patient; this it appears to me is the only rational method of proceeding, and the only one that will be likely to lead us to the desired result.

If we examine our patients with care, we shall find that renal calculus and gravel is not more confined to the one form of temperament than to another; we as often find it presenting in the nervous as in the lymphatic temperament, and there are no differences observable in this particular with the sanguine or bilious or mixed temperaments. The conditions of living has not presented to my observation more specific influences in its production than temperament or climate, except in this particular, that where the malady is fully developed, regimen may and does exert an influence in mitigation or increase in the symptoms as it may be properly or improperly directed.

The fact is patent that dietetic measures do modify and change the features of this disease, and that those effects are constant under different temperatures and hygrometric conditions; here, then, is a tangible point on which to rest in part, and which ejects from our catalogue of causal processes the purely suppositious process of climatic diversity.

With this undeniable truth before us regarding regimen and diet where the disease is already present, we are furnished a starting point of a definite character from which we should be able in aftertime to frame rational and philosophical answers to the many vexing questions that now surround us touching the origin and primary influences which take part in the production of renal calculus; it is from this point of view that we shall be able to solve the problem of its rise, progress, and full development, with the greatest readiness and most certainty.

I would not be understood as implying that the process of digestion governs the phenomena we witness in these cases, but that it is governed in a material manner rather by the processes of assimilation and metamorphoses which subsequently follow.

In connection with these points it becomes necessary that we keep in view the mechanical nature of the process of renal excretion, from which it becomes comparatively easy to conceive how deposits can take place in those organs which shall be of a different nature in themselves as the volume and quality of the blood passing through the vessels of the kidneys shall of itself vary. This axiom being accepted, it will be seen at once that we are by its inherent value referred to the prior condition of the blood before its entrance into the renal organs, to find the primary causes inducing the abnormal condition of their excretion.

Physiology has taught us that the "constituents as well as the amount of urine *must* depend upon the existing constitution of the blood." It has also taught us that the constitution of the blood cannot be regarded as the *exclusive cause* of any one, nor all the modifications we witness in that fluid, but that the mechanism of the renal organs exerts an influence in these particulars that must not be overlooked.

In the first, then, is to be found the primogenial conditions from which the calculus deposits are eliminated, and in the second we must look for the proximate cause of their deposition.

It has been most clearly proved that certain conditions of the nervous system exert a marked influence on the quality and quantity of the urine, but our knowledge of the elemental conditions through which this is brought about is so meagre that it would indeed be an arrogant position to assume did we attempt to exhibit its *role* either in urinal elimination and excretion or the deposition of gravel.

We have now to apply another axiom in this matter, which is of a chemical nature; it is this: that no chemical change can ensue in normal compound fluids without an adequate cause for that change, and the disturbing agent then becomes demonstrable, physically or otherwise. This axiom applies with greater force, perhaps, to the urinary excretion than to many other animal fluids, in consequence of its complex and also its inconstant character. After having stated our laws governing these processes, we have but half finished the argument if we fail to show how and where those laws affect the fluids and parts in question, and this is a less easy task than at first sight may appear; it is much to be doubted if more than probability is susceptible of demonstration in the present state of our knowledge.

In the first place it is necessary that we have possession of the negative evidence in the case, and I therefore direct attention to the *tubuli uriniferi*. Physiology has not yet shown that any disturbing cause reaches the urine while it is contained in these tubes, whereby lithiasis is induced at those points, (except in so far as the uric salts are concerned, which will be noticed in a subsequent part of this paper,) therefore we must pass beyond those vessels and seek a solution of the cause of the difficulty in some other portion of the kidneys where a change in the constituents of the urine may be found that shall, in part at least, be adequate to the results we witness in this disease.

The value of our second axiom here comes into force, and must hold good until it has been proved that such disturbing cause exists in the uriniferous tubes, and under its power it will become difficult to find a cause for the genesis of these calculi in those tubuli, because the urine is here received direct from the Malpighian bodies, from which latter no other secretion has yet been shown to have been eliminated and commingled with the urine; this point being granted, we have a less difficult task to furnish a show of reason for its occurrence subsequently.

The following, then, would appear to be the *modus operandi* by which renal lithiasis is brought about, and the locality in which it is generated. The calculi are evidently formed during or after the passage of the urine through the *tubuli contorta*, the urine receiving its first change in these conduits after its separation from the blood through the preceding system of vessels; they attain their principal bulk subsequently in the pelvis by successive incrementations. The reason of this appears to be the following: after the first eliminated urine has entered the *tubuli contorta*, it is in a very concentrated state, in consequence of which the efferent vessels are unable from that cause to carry on with effect those osmotic changes which take place when the constituents of the blood and separated urine are in a normal condition. The cause of this functional error in the latter vessels seems to me obvious, and rests on these facts: *first*, the concentrated condition of the urine prevents the endosmosis that would ensue here under a normal condition; *second*, the exudation from the bloodvessels of this system so alters the relations of the solids of the urine in the *tubuli contorta*, that a separation of those solids ensues; *third*, that in consequence of this disturbance of the relations of those solids to the fluid in which they are contained, the uric acid is liberated, and here becomes the initial point from which these calculi have their proximate origin. It appears to me plain that when the urinary excretion has reached the *vassa efferentia* under the above conditions, it is not in that state from which these vessels can abstract the necessary amount of water to dilute the returning venous blood, in consequeuce of the densities of both fluids being more approximate than is the case during a normal state of health.

The result of this process subsequently, would be diminished elimination from the greater plasticity thus attained by the blood, from which an increasing concentration of the urinal secretion would follow.

The effects of these causal operations, thus briefly stated, cannot prove otherwise than disastrous, to a greater or less extent, upon the delicate tissues composing the vessels through which the urinal materials are separated from the blood; impairment of their functions must follow, and with it, sooner or later, a general systemic derangement.

The progress of lithiasis is slow, and as may be seen from the causes enumerated above, it must necessarily be so, for were it otherwise, those functional and organic changes which ensue in its course, with the mechanical obstructions that supervene, would rapidly destroy the lives of our patients from acute disease. The advance of the malady comports itself in all particulars with that which we should expect when we have in view the functions of the organs involved, and in its march we can easily discern the effects of gradually impairing functions followed by intensity of degree in the symptoms, and their more frequent recurrence, until at the end of years of suffering, the patient is worn out, and succumbs either to the process direct or its results.

I wish to be understood as making a clear distinction between lithiasis and those impacted concretionary matters at times found filling the *tubuli uriniferi*, and which consist for the most part of the lithic salts alone, (urates ;) the comparative easy solubility of these salts renders them much less formidable to contend with as an abnormal product than the acid of which they are in part composed; it is true they become dangerous by impacting those urinary tubes, but when grave symptoms arise from this mechanical obstruction, it will be found that they partake of characteristics differing materially from those of renal calculus.

That form of gravel we are most often called upon to treat, and which at the same times becomes productive of the most acute suffering, is, as we have seen in the preceding part of this paper, located and evidently has its origin in another system of vessels, which are affected by influences differing from those which govern in the tubuli uriniferi.

It must not be forgotten in our investigations regarding this disease, that we have more than one form of material to contend with, and more than one abnormal constitutional condition to correct (and here of necessity we at once perceive the many abstruse points that must arise as connected with this subject,) in different individuals, or at times in the same individual; so much so is this the case, that uric acid gravel may be persistent for a long period, when by treatment or regimen it becomes changed to a phosphatic deposit, and again slowly the reverse. I have known two such cases, in one of which the dietetic measures alone so changed the renal deposit of uric acid gravel which was present, to that of the ammonio-magnesian phosphate, that the patient came near losing his life. In the other case the remedial measures (?) brought about a similar result in the calculus sand, but the patient died.

With the views enunciated above as to the genesis and location of gravel in the kidneys, the malady I have treated with success; the object in the treatment being to preserve as near as possible a degree of uniformity in the density and quantity of the renal excretions, but not to produce a radical change in the character of the solids. I will now relate a case which will serve in some measure to illustrate these views.

B. C., aged 62 years, Justice of the Peace of San Francisco, applied to me for treatment while laboring under a "fit of gravel," on the 24th of September, 1860. At the time I saw him he was suffering from acute pain incident to the passage of a calulus through the ureters, with troublesome nausea; there was also severe pain through the loins, in the bladder and urethra, and at the end of the penis; the pains also extended down the inner parts of the thighs; there were frequent calls to micturition, which was painful, slow, and dribbling. He was placed under the general treatment of opiates, &c., for the immediate alleviation of his sufferings; at the end of four days he was free from his acute troubles, and out of bed. At the end of a week he passed several small stones per urethra, which, on examination, proved to be lithic acid. After the cessation of all the acute symptoms arising from this attack, he was placed under a general treatment for the removal of the systemic and local troubles. The temperament of this patient is phlegmatic; the skin is pale and opaque, the mucous membrane of the lips is dull, and it is usual for them to present that peculiar efflorescent appearance so common to persons who are much exposed to out-door life, though this was not the fact in this case; the buccal membrane is pale and flabby. There is a dullness of expression in all particulars which is striking and peculiar, but which does not reach blunted sensibility, nor dullness of intellect, yet there is a disposition to slowness of action and half obtuseness. A casual examination of such a patient, with his naturally full habit, would scarcely induce a suspicion that continued and material disturbance of physiological function was present.

In addition to the above he complains of the following symptoms. There is almost constant pain at the end of the penis, at times extending along the urethra; the urine does not flow in a full uniform stream, but is irregular, and drops or dribbles slowly off; after the bladder is emptied there is at times pains about its neck, and also deep in the prostate, but these latter are far from being constant. The calls to pass urine are frequent and pressing, and if it be not soon voided there is very severe pain in the bladder, but whether empty or full, there is in this organ a constant sensation of dull weight. There is more or less pain in the spermatic cords of one or both sides, and also in the flanks, and extending down the thighs on their inner aspects; these are preceded by pain in the lumbar region.

In the region of the kidneys there is a constant *ache*, not acute in its character; this is attended with a sensation of burning heat, and with the feeling of dragging weight. On account of these troubles in this part of the body, there is almost utter inability to stoop naturally, (as to pick an article from the floor,) the knee and hip joints being flexed and the body settled vertically to accommodate such necessity.

The urine is high colored, has a strong acid reaction, and deposits copiously free uric acid in the form of sand, occasionally with gravel of the same material. Such are the general symptoms.

The history of the case, in brief, from its inception, is as follows. The first symptoms of gravel manifested themselves in 1848, and continued, with little intermission, for two years, when they subsided for a year. At the end of this period they again recurred, though not markedly severe until 1854, from which year they have been continuous and gradually progressive in frequency and severity. During the latter part of 1859 and through 1860, the recurrence of the attacks took place once in four to seven weeks. Their frequency and severity during 1860 threatened to undermine the health rapidly, and for this cause relief was sought.

On the 29th of September the patient was placed under treatment for the general symptoms.

From what has been said in another part of this paper touching the probable origin of renal calculus, it will become apparent that to treat a case of this character with success, it becomes necessary that we so govern our measures of relief, that while we attempt to correct the vice of assimilation on the one hand, that we do not create any obstacle to the excretory functions on the other; and in the treatment of the systemic cause it is most evident (from the two cases alluded to) that to attempt a radical change in the chemical relations of an acid lithiasis, will involve too serious risks to the health, if not the life of the patient. It becomes, then, a delicate process to so control the physiological relations that we may hold each vice in check and thus permit recovery of vitiated function; in our desire to render prompt relief, we must not overlook those dangers to which we shall most certainly subject the patient if we attempt by remedial measures to change radically and absolutely this previous condition. I am not of the opinion that lithiasis is curable by effecting such radical changes as is proposed in this malady; all facts in practice are against, physiology contradicts the hypothesis plainly, and pathology proves it an error.

With the preceding ideas in view as to the rise and progress of this malady, the treatment was commenced. Under the suggestions thus obtained, it became evident that the first step in the programme was to free the renal organs as rapidly as possible of their accumulating urinal solids, which by their incremental accretion become the proximate cause of these accidents, in consequence of functional deficiency mediately induced from their mechanical obstruction on the one hand, and the deficiency of elimination which is always present on the other hand. If the anatomy of the kidneys and their physiology, also, can direct us in any manner, it must become evident that these latter conditions, particularly the former of the two mentioned, becomes an important factor in these cases.

In the general rules laid down for the treatment of this malady, it appeared to me that they partake too much of a specific character, and that the object sought to be obtained is a radical change in the excretions; in treating this case we took advantage of the osmotic functions to effect the disired ends; an acidulous as well as an alkaline course was adopted as the case from time to time demanded, but in no instance was the urine permitted to become neutral nor alkaline.

From the course of medication pursued it will become apparent that we present here no specific for the removal of lithiasis, for if we did so it would be the opposite of what exists as the cause of the difficulty, yet under the alkaline treatment my patients did not mend so rapidly or feel so well as when an acid treatment was substituted.

This case was treated for the two first weeks with the sesquichloride of iron as a super salt; it was given in such doses that the fecal evacuations were never discolored from its use, and it could always be found in the urine with the ordinary reagents. There can be no rule laid down as to the exact quantity of this salt to be exhibited, for the system will appropriate more of the remedy at one time than another, but prevent it from producing specific action on the intestinal contents and evacuations; from this remedy the true ferruginous fever was more or less marked, and during its continuance the amount of excreted sand was very heavy; at the end of two weeks the iron salt lost its effect, but the urine was still acid, and had taken on a less red tint. The alkaline salts with the organic acids were now substituted, and continued until a disposition to the *white tongue* manifested itself, (which required but a week with any one of them,) when they were again replaced by the ferruginous salts; during the use of the alkaline remedies there was less lithic acid sand deposited, the urine still acid and unchanged in color to any extent; the pains in the loins and region of the kidneys had returned. Within two days from the resumption of ferric salt the sand was again plentifully excreted, attended with a removal of the symptoms as before; at the end of one week the urine was normal in color and reactions, and required twelve hours before any deposit of uric acid was noticeable. Mineral acid salts, the salts of organic acid, with the fixed alkalies, constituted the treatment as given in brief above; these were alternated as the symptoms and the condition of the urine might indicate, and were thus continued for a period of five months. At the end of this time all the symptoms of lithiasis have disappeared, and no attack of gravel has occurred during the seven months just now ending.

At the beginning of the sixth month I directed my remedial measures, for the first time, to correct the vices in assimilation which are so apparent in these cases, and through that means to hold in check the active regressive changes which follow in its course. Soon after the use of these measures, (all other treatment ended,) the patient manifested most marked improvement in all particulars; the appetite and digestion were well performed, and all the secretions took on healthy action; his face gave unmistakable proof that arterial blood did flow through the capillary vessels, which fact had not been apparent for a long period previously. It might at first sight appear somewhat strange that this latter course of treatment was not adopted at the commencement of the case, but a moment's reflection will convince us that such a course would have been without avail without first removing the mechanical and other obstacles to excretion which existed. The only remeedies that have been used to bring about this latter result, were a combination of oil and glucose; the brown cod liver oil having the preference, from the fact that it is more easily assimilated than *any* light colored oil, however fresh it may be. The use of glucose obtained from the fig has the preference with me over any other. This remedy alone has been continued for sixty days, and is now omitted as well as all other means of medication, and the case has been discharged; he appears as free from renal calculus now, and has for five months, as at any period during his life, and has been directed to live in his accustomed manner as heretofore, and to use wines whenever he feels the inclination so to do. I have thus directed his course of living more for the purpose of testing how far the cure is radical in its character, which a few months will develop.

Editor's Table.

DIPHTHERIA.—During the first two weeks of April this disease manifested itself with all its usual malignity in this city; there were eight well authenticated cases. Of this number six died, the mortality being seventy-five per cent. This accords with our investigation of the relative mortality of the epidemic of 1859, which spread over the State that year; the result of those inquiries developed the fact that in all the cases that could be well authenticated at that time, the ratio of the mortality amounted to seventy-two per cent. There are many cases called diphtheria which have scarce any semblance to the disease, and are cured; but most physicians who are not disposed to deceive, and have treated this disease, will tell you frankly, and the patients' friends also, that it is for the most part beyond our control. The scourge, which bid fair to take on an epidemic form from the first to the seventh of the month, has subsided.

NOONIN'S CASE.—The case of Mr. Noonin, which attracted so much attention in Australia in 1859, may probably be fresh in the minds of some of our readers; a brief statement may not prove uninteresting to those who do not remember the circumstances. Noonin received a blow from the edge of a sharp axe which severed the os frontis and parietal bones to the length of five inches by two and a half inches in breadth, the whole of which, with the brain included in this space, and to the depth of one inch or more, was removed by the blow. The position of the wound is near midway of the median line and a line parallel thereto, and extending through the temporal ridge, and marked anteriorly by a line two inches above the nasal tuberosity and extending in a horizontal course to the region of the sqamous suture on the right side. The axe also entered the right shoulder near the inner edge of the acromion process. Another blow from the axe penetrated the cavity of the chest on the left side, through which the air entered and was expelled for several weeks. Tolerably severe injuries. The amount of brain lost and collected, and preserved in alcohol, weighs at this time three ounces. It is now seventeen months since the injury was received, and when we saw the subject of this note, April 13th, he had full possession of *all* his mental faculties; his memory is not in the slightest degree impaired, vision and hearing perfect, special nor general sensation is in no way disturbed so far as we could discover in conversing with him a full hour; he reads small print easily, and is not more fatigued from this exercise than most persons. Appetite good, and nutrition well performed; he looks as though he enjoyed general good health. He recently performed a voyage from Australia to this port, but he is not improved by the trip; the motion of the vessel produced most unpleasant cerebral symptoms with him. He was attended by Mr. Radcliffe, and Kendiootis, the latter a Grecian.

SPINA-BIFIDA.—The case mentioned in our last number under care of Dr. Douglas, and which we left on March 25th, has been steadily advancing in the reparative process of the mischief. On the 9th of April the lower extremities manifested some indications of motion; on the 12th the movements of the legs and feet were under the control of volition, and were flexed and extended in a marked degree on the slightest irritation. A disordered condition of the bowels had taken place, which under treatment soon subsided; from this time till the 14th, the tumor in the lumbar region, which before had been gradually diminishing, exhibited some sign of swelling, and fluctuation was again perceptible in about one-eighth part of its surface and on its superior aspect; pressure upon the tumor now did not induce spasm as before, but the infant still manifested signs of uneasiness when it was applied.

Since the 25th of March the head has presented no symptoms of increase in the effusion of the cerebro-spinal fluid, but, on the contrary, there is much less obtuseness in the sensorial functions, which would lead us to the inference that whatever there remained of the abnormal quantity of fluid within the cavity of the cranium was being gradually removed. The infant has ceased vomiting its food, and nurses easily and plentifully.

April 14th the tumor was again injected as before, and the solution retained for five minutes; on pressing out the injected fluid, the protuberant part of the tumor became flaccid, and the child went off into a quiet sleep. On the introduction of the trocar to-day, the patient squalled lustily, and twisted and threw its body and legs about rather too strongly for comfort or our convenience; which, as may be seen from our previous article, presents a different state of affairs than before existed.

Operations on the Iliac.—Dr. Hammond tied the common iliac for gluteal aneurism, in February; secondary hæmorrhage supervened, and the patient died on the twenty-fourth day after the operation.

At the Marine Hospital, the external iliac was tied for aneurism of the profunda, on the 20th of April, by Dr. Maxwell. Patient died on the eighth day afterwards.

At the same hospital, the external iliac was also tied by the same operator on the 1st of April, for femoral aneurism. The patient died on the fourth day.

Bromide of Iodine.—Since our last issue we have used this remedy in three cases of very mild diphtheria, and it has answered our expectations. In one case, a young man of eighteen years, both tonsils were spotted merely with membranous exudation, the remedy was applied with a pencil brush to the parts; on the following evening the spots had disappeared; he took the bromide in the proportions named, (3 drops to 1 oz. syrup,) during the day. The other two cases were infants, and the remedy was diluted to suit their age; its effects on these were kind.

Epistaxis.—About three weeks since we were called to a laborer on Steuart Street, to stop a violent nose-bleed. At the time we saw him he had been bleeding for *nineteen hours*, with just intermission enough for the system to rally from each bleeding only to commence again. The pulse was small and rapid, (130,) the surface anemiated, and no veins visible on any part of the body; the lips were white; an attempt at motion nearly induced syncope. The clot was separated from the nostrils, and those passages thoroughly opened; it is needless to say that a fresh hæmorrhage followed. The nostrils were injected with a strong solution of Monsel's salt, and, as anticipated, it did not check the flow of blood except for a few moments; we now applied the salt in substance to the surface of the bleeding parts, when the hæmorrhage was immediately and permanently controlled by the one application only. We saw the patient at ten o'clock that night, four hours after the application of the salt for the first time, and no disposition to hæmorrhage presenting, we left him for the night. On the following morning the nostrils were again cleared from the hard ferruginous coagula, and no hæmorrhage ensued; a fresh portion of salt was, however, applied as a preventive to further bleeding. At the end of two weeks there had been no recurrence of the bleeding, but the patient was still weak from the excessive loss of blood which he had sustained; had the salt been applied in the commencement, the hæmorrhage would probably have been promptly arrested. We have yet to record the first instance of a failure to arrest this and after bleedings when this remedy is rightly applied, and is at the same time properly prepared.

Suspension and Reestablishment of the Lacteal Secretion.—M. de Roseville, of Paris, has published in the *Gazette des Hopitaux*, the history of a case of the disappearance of the milk in consequence of mammary abscess, and the reestablishment of that secretion by continued electrization. It is looked upon as a rather remarkable incident.

We have recently treated a troublesome case of this character, which had been standing for months, and, under the use of cod liver oil and glucose alone, not only cured the abscess but reestablished the mammary secretion. We did not consider it a remarkable case at the time, but it is doubtful now how long it may be before we shall look upon it as a wonder.

The Vomiting of Pregnancy.—Dr. Turner, of Petersburg, Va., has advanced the doctrine that this unpleasant symptom arises from a paucity of blood on the brain. His hypothesis certainly has some reasonable features, and it deserves further investigation. We hope Dr. Turner will follow up his suggestions by direct experiments; they are fully worthy of continued efforts.

Death of Dr. Adams.—Another professional brother has lost his life in his efforts to save that of his patient. Dr. Adams, of Boston, in attempting to resuscitate a sinking patient, with membranous angina of the throat, by inflating the lungs of the sufferer from his own lips, contracted the disease of the patient and died from its effects. The malady developed itself on the second day after the operation, and terminated his life on the sixth.

Small-Pox.—During January and February of this year there have been about forty cases of this disease in this city, from which we can learn of but four deaths resulting. We believe the city now free of the contagion, and will probably remain so until the arrival of the next steamer.

Acute Morbus Brightii.—At the Edinburgh Infirmary, in the wards of Prof. Hughes Bennett, there have been several cases of this disease in the acute form; the principal remedy applied in the treatment has been the bitartrate of potassa, under the action of which the patients have done remarkably well.

Pitting from Small-Pox.—A plaster prepared as follows:—zinci carbonas, parts 3; zinci oxydum, parts 1; oleum amygdala q.s. to make a soft mass. This plaster applied to the face diminishes the distress and prevents the marking from the pustules.

Alcohol and its Test.—The experiments of Lallemande on this agent are founded on the doctrine that the vapor of alcohol reduces chromic acid; it is easily shown by passing the breath, or the vapor of perspiration from any part of the body, through a solution of bichromate potassa in a large quantity of water.

Reduction of an Old Dislocation.—Dr. Wm. H. Hubbard, of Long Island, N. Y., (Gravesend,) recently reduced a disclocation of the humerus of eleven years' standing. Perfect recovery of the use of the arm was the result; so says the *American Medical Monthly.*

Stahlman's Tongue Spatula.—From Mr. Church's description, and the plate representing this instrument, it appears to us that it is just such an article as has been required for a long time, not only in laryngoscopy, but also all those little operations about the throat we are so often called upon to perform. They are manufactured by Tiemann, in New York, and we hope his agent here (Wakelee) will order some for this country. With this instrument we think there can be no trouble in dispensing with that frequent annoyance, the tongue, in such cases.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late JOHN W. FRANCIS.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from emiinent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the SUMMARY OF MEDICAL SCIENCES will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "THE EPITOME" —and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. WELLS, M. D.—DEAR SIR: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage aud can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE
Pacific Medical and Surgical Journal.

Selections.

From the St. Louis Medical and Surgical Journal.

Letter from Dr. S. Pollak.

AN ITINERANCY TO AND THROUGH SOME OF THE HOSPITALS OF PARIS.

PARIS, Dec. 16, 1860.

CORRESPONDENTS from abroad have been in the habit of writing out or reporting lectures, or some interesting operation, which are usually found in the medical journals. To report a lecture requires more than ordinary skill. Few of us understand or speak French well enough to take notes verbally, even if we could write sufficiently fast. We must trust greatly to memory. Then justice is hardly ever done to the lecturer. One word added or deducted from what the lecturer *really* said, may change his meaning entirely. Whenever you find a faithful report of a Parisian lecture, take it for granted it is a mere *translation* from a journal.

The Parisian hospitals, with the exception of one, the *Lariboisiere*, are certainly the poorest looking establishments imaginable. But for the most perfect system of discipline and order, and the most exemplary organization, it would be impossible to attain good results.

The hospitals of Paris, though founded at different epochs, by kings, princes, ecclesiastics, or rich men, and for a long time managed according to their own constitutions and by-laws, wholly independent of each other, have, since the revolution of 1789 been centralized and brought under one administration. The present organization, however, dates from the 10th of January, 1849. It is under the immediate authority of the Minister of the Interior, and the Prefect of the Seine. The Board consists of a President and a Board of Council—the members of which are taken from nearly all classes of society in Paris. One third of the members go out every two years. It is known under the name of "L'Administration generale de l'assistance publique a Paris." Sixteen hospitals, general and special, nearly as many dispensaries, medical schools, institutions for the blind, the deaf-mute, and the insane, are all under its charge. It is the most extensive and most complete hospital organization extant. Most of these *charity* hospitals contain *pay* and *gratuitous* patients. A polyclinic is held in all of them, where out-door patients receive medical advice and medicines without charge. The number of patients at these *consultations gratuites* is fabulous, but not more so than the trifling expense at which they are conducted. A most important lesson is to be learned here on that score. The *access* to the hospitals is very restricted for visitors. Even physicians must present themselves first to the *directors* of *each* hospital, and for two of them, the *Lourcine* and the *Maternite*, it requires an especial permission from the *Director General*.

A written application, stating the object of the visit, and countersigned by the Minister resident, must be made. This I did, and our amiable Minister, the Hon. Mr. Faulkner, readily affixed his name to it. The permission was at once granted. I also applied for books, pamphlets, and reports, relative to the "Administration generale de l'assistance publique," which were at once given me—fifteen volumes of most invaluable matter, from which our Board of Health might derive many useful and important hints.

So much as a preliminary—now for the visits. I begin with *la Charite* in the rue *Jacob*, it being nearest to my home. An old dingy-looking house, with 494 beds, 247 males and 247 females. The physicians *en chef* are: Piorry, Bouillaud, Briquet, Nonat, Pelletan and Beau. Some of them are great lights. The surgeons, Velpeau and Malgaigne, are celebrities. The veteran surgeon Velpeau is on the decline, on account of great age. His clinic, though numerously attended, is not profitable. He is followed by a corps of twenty-four internes and externes—white-apron men—who necessarily occupy the first place around the bed. Neither students nor visitors can get near it. Of course, *seeing* is a rarity, if not an impossibility. Velpeau speaks now so low that even *hearing* becomes difficult. Follow him in the amphitheatre, the same difficulty exists there; I saw him operate twice, and do not care to attend him again. The day of his greatness is passed. His obstinacy in absolutely resisting every progress in science, in which he was not immediately instrumental, renders him exceedingly unpopular. His resignation is anxiously looked for.

M. Malgaigne's clinic is followed by none. He is absolutely forsaken at the sick-bed. He never *operates*, he only lectures. As a lecturer on "operations et appareils," he has no equal; he is certainly the most brilliant and popular in Paris. It is strange that he who speaks so well about operations, and who has invented so many instruments, and criticises and rejects so many more should never venture to *perform* an operation. His lectures at the Ecole de Medicine, from four to five o'clock, are immediately preceded by Monsieur Guillot on Pathologie Medicale—*an intolerable bore*—who walks up and down on his rostrum, talking to himself, not noticing his hearers, if there be any, who are talking, laughing, smoking, throwing filberts at each other and at him. He closes precisely at four, under hisses and yells, and cries of *l'avocat! l'avocat!!* In the meantime the hall commences filling, until it is replete to overflowing. Magaigne comes, and is received with shouts of applause. He at once starts off "in a gallant style." He speaks extempore, is extremely eloquent, at once satirical and witty. He keeps the audience in a state of constant excitement and hilarity. His manners are theatrical. One feels as if being rather with a satirist than a teacher of serious subjects. He entertains, he amuses; but certainly does not teach. The hearers come in for recreation, but not for edification. I have yet to earn what is the good of his lectures. Whether we know the whole armory of surgery of by-gone days or not, adds very little to our skill; cutlers get rich by it, but surgeons are not wiser, and patients not better. The chair of Malgaigne might be readily abolished.

At La Charite, Piorry attends chiefly to the chest diseases, and Nonat to the women. Every Thursday he holds a *consultation gratuite* for out-door women. Not less than fifty present themselves, who are all, without exception, examined by the *speculum*. Such abuse of an instrument, and such brutal inefficient treatment, I never thought possible. His diagnosis is as false as his treatment is stupid. Woe to the young physician who would receive his first instruction there. Still they are in attendance by dozens. Whether attracted by an indelicate curiosity, or because they really believe much can be learned, I can not say. Certain it is, such a mode of procedure would not be tolerated in our country, and should be repudiated here. The other *chefs* only attend to their wards, each having several internes and externes attached to his service.

The next hospital I saw was *l'Hopital de la Facultie*, where I only attended a few times with Nelaton, the most brilliant surgeon of Paris. He is as handsome as he is intelligent, and as agreeable as he is learned. This hospital, also, is absolutely unworthy of Paris. Nothing but the interest afforded, and information acquired, by such a man as Nelaton, would induce me or others to visit it. His clinic is excessively crowded, not only by students but old practitioners. His internes have not the prerogative of monopolizing the bedside. Hence, by being posted about the interesting cases, and taking the stand in time, one reaps the full benefit of that man's observation. He speaks clearly, loudly, and to the point. Following him in the small, ill-constructed amphitheatre, where every inch of ground is occupied by eager and attentive listeners, he elucidates in a most felicitous, extremely instructive manner, the cases in the ward, and those to be operated on. He is eminently practical and philosophical, and never fails to leave you without a perfectly clear understanding of the case. I never will forget his *remarks* on abscesses in the medullary substance of the bones—his illustrations on the black-board; still more on the old pathological specimens; and then the operation, with the trephine on the humerus, for this disease, which not only verified the extremely difficult diagnosis, but gave unspeakable relief to the patient. I could not do justice by reporting from my memorandum his learned remarks. A word omitted would be an irreparable loss. I bought his work on this subject, which will be at your disposal. He alone is worth a visit of a month in Paris, not only for the surgeon but the pathologist. Such men as Nelaton give eclat to an age, and reputation to a medical school. I have seen operations performed as well, but never saw them introduced in such a forcible, clear manner, carrying conviction of his views and acquiescence in his proceedings. The other wards of the Facultie I have not seen yet; one of them is of considerable interest. I mean the "*clinique d'accouchement*," under Paul Dubois. I will refer to it on some other occasion.

The *Hotel Dieu* is the oldest hospital in Europe, having been built in 660; and for nearly ten centuries it was the only hospital of Paris. It has 810 beds; 430 for males, 380 for females, 555 for medical, and 255 for surgical cases. It is a most inconvenient institution, being built on both banks of the Seine, with the two parts connected together by a *passerelle* and a *pont volant*. The service there is very difficult. A total removal of the building has long been spoken of, and is much desired. I only attended a few times the clinic of M. Trousseau, one of the glories of the profession, and the pride of Paris! He is a very handsome man, of dignified but courteous demeanor. His clinique is not in the least better attended than it deserves to be. Men already high in the profession follow him; for he is always instructive, philosophical and agreeable. The crowd is too large to profit much at the bedside, although he speaks loudly. The lecture room is always replete to overflowing. His true greatness is at once manifest. His voice is beautiful; his gestures apropos; his language choice; his emphasis just at the right point; his ideas are clear, well digested, admirably expressed and convincingly true. These truths are not only conveyed by sound reasoning, but by ocular demonstration on pathological objects.

The medical clinics are not quite as conscientiously conducted in Paris as in Vienna and Berlin, where the crucible, the test-tube, the microscope, and other physical apparatus are constantly brought into requisition; but they are for all that good. As diagnosticians, they need fear no rival; but their therapeutics would be wholly inapplicable in our country. Every moment spent in studying therapeutics here is time and labor lost. Infinite good might be derived from studying and imitating their admirable and rigid system of *diet*, which certainly, more than all their medicines, effects the cures. Their nurses are usually well schooled and experienced, not the first best "who wants a place." Their intelligence in watching, and the constant presence of numerous *internes* and *externes* for observing and rendering immediate aid, cause more good results than the learned clinical treatment during the grand visit. Besides Trousseau, there are in the Hotel Dieu the the following *medicins en chef:* Rostan, Piedagnel, Cuerard, Grisolle, Legroux, Horteloup, Barth; and the surgeons are Laugier, Jobert de Lamballe, Robert. All have a corps of *internes* and *externes* attached to their service. The *externes* are those who have completed their medical studies, but have not yet graduated. In applying for an appointment, they have to make a *concours* before a properly constituted board of examiners. The best of those examined are chosen. The appointment is for not less than one, nor more than two years. They do the minor surgery of the hospital, such as dressing wounds, cupping, &c. They receive six hundred francs a year, free lodging and board. After having been an *externe* for more than a year, he must make another *concours* if he aspires to become an *interne*, who does all the medical duties of the hospital in the absence of the *chef*. The appointment does not exceed five years; they must change hospitals every year and rank according to seniority. Their appointments are the same as the *externes*. What an immense advantage for a young student to receive such an appointment! While on duty for five years, they prepare for the final rigorous examination to obtain the degree of M.D., &c. Of course, there must be some slight difference in the requirements here and in the United States.

The *Salpetriere* is only remarkable for its enormous size, occupying not less than 90 arpens of ground, mostly covered with buildings. There are 4369 beds; of which 3048 are for aged females, and 1321 for the insane females. There are no males in the Salpetriere. With the attendants and officers there are 5800 persons in the institution—quite a respectable sized town; the food for *all* these is prepared in *one kitchen*, which is really not much larger than many of our hotel kitchens. The *laundry* is also a most interesting department; for they not only do the washing for the large population of the Salpetriere, but also for three more hospitals, namely, the Charite, Hotel Dieu, and Beaujon. An army of feminines stand around the immense basins of running water, doing the work not half as well, and not one-eighth as fast, as one of our washing-machines would do it. However, Parisians are very slow to adopt things from abroad.

The physicians *en chef* are, for the medical department: Cazalis, Richard. For the insane: Fabret, Mitivie, Lelut, Trelat, Baillarger, (the first and last eminent psychiatrists, and proprietors of large asylums for paying insane.) The surgeon is M. Follin, quite a prominent surgeon and oculist. He gives every Saturday a free course of lectures on the ophthalmoscope, with demonstrations with a large sized instrument. They are well attended, and quite instructive. Material is of course abundant. The changes in the interior of the eye of aged people can nowhere be better studied.

The *Hopital du Midi*, with 336 beds, all for males, is only for *venereal* diseases. This was the theatre of the immortal Ricord for nearly a quarter of a century. *He is there no more.* He has *resigned* his office as one of the surgeons of the Midi. According to law, hospital physicians must withdraw at 65, and hospital surgeons at 60 years of age. It is thought the hand is not steady after that period of life. But it is strange, *professors* are permitted to retain their position for life; else Velpeau would have had to withdraw long since. Ricord is near, but not quite, sixty years of age. He withdrew sooner, it is said, on account of the loss of his *prestige* of being the infallible oracle in venereal diseases. Since he was forced to acknowledge his defeat by the German syphilographs, his temper has become soured, and he goes to medical reunions no more. His admirers will give him a banquet at the Louvre on the 20th instant. There were always three *chefs* at the Medi—one medical, Puche; and two surgical, Ricord and Cullerier. The latter has taken Ricord's place, and Cusco is his successor, a brilliant young surgeon, who is rapidly stepping into the popularity and practice of Ricord. The latter has published a "Farewell" work on Chancre; the first edition has been exhausted as fast as issued. However, I got a copy. A few months' sojourn at the Midi will familiarize a person perfectly with syphilis in males, and also with the different, almost contradictory, views and treatment of the respective *chefs*. I will have occasion to explain and substantiate the last assertion. Whether they are here more successful in treatment than we are in the United States, I can not say. They certainly ought to be; for they are not sparing in bold and most extraordinary means, which in private or even hospital practice in the United States would not be feasible.

The *Hopital de Lourcine*, with 276 beds, is the hospital for venereal females. Not even physicians are admitted, except with an especial permission from the *Directuer General.* It is under the charge of the Sisters of Compassion, a religious order. The wretched inmates leave the institution, not unfrequently, not only cured but reformed. The *medicin en chef* is Lailler; surgeons, Ad. Guerin and Ad. Richards, the last one a rising star, already before the world as the author of many works on the natural sciences. He has to perpetuate the fame of his distinguished father, the botanist and pathological anatomist; he bids fair to succeed. He is most courteous and communicative, (a virtue in which the Parisian *chefs* do not abound.) I will hereafter mention some of his new views and treatment of syphilis. In the Lourcine, the surgeon does not go round to visit, but he takes his seat in a small well-lighted room. The damsels come in, as they are called, are placed on a well arranged couch before the light, and are at once *speculated!* a new word, but fully conveys the meaning. A crop of venereal vegetations—condylomata—as large as a cabbage head, were clipped off with scissors, touched with the Vienna caustic, and sent away, not rejoicing, but screaming; he thinks cured both of the disease and vice. No *other remedies are used.* Vaginitis and the accompanying blennorrhœa is treated by tamponing with balls of raw cotton, steeped in a solution of *equal parts* of *tannin* and *glycerine.* I was assured that of all remedies tried there for that stubborn malady, this has proved the most effectual. I can bear testimony to the efficacy of this remedy; I have used it long ago, only taking one part tannin to eight of glycerine, and always with better results than any other remedy. As a general rule, there are very few medicines given in syphilis either at the Midi or Lourcine. Diet and bathing seem to be the main stay. Before I leave this city, I will take a private course in these two institutions, and will be able to bring home some items which books do not tell.

The *Maison d'Accouchement* or *Maternitie*, of 530 beds, is, like the preceding one, not accessible except by an especial permit from the *Directeur General*. The *medicin en chef* is Delpech, and the surgeons Danyau and Beraud. The *sage femme en chef* is Mad. Alliot.

This is not only a hospital for par urient women, but also a school for midwives, there being over 150 in attendance, who receive a most thorough French education; a perfect anatomical and physiological knowledge of the pelvis and the female organs of generation; of the process of gestation and parturition, &c.; of pathology they learn enough to know when such a condition occurs, so as to demand medical aid. They are required to complete a two years' constant sojourn, and to do all the menial duties needful about a parturient woman; have to become *gardes maladies*, and each, in turn, superintends the whole process of accouchement. Two thousand five hundred births are averaged every year. Their opportunities for learning are therefore excellent. Lectures are daily given by Beraud and Mad. Alliot, who is not only a skillful *accoucheuse*, but an uncommonly fluent, clear teacher, a strict disciplinarian, and a good excellent woman. I met an American lady from Pennsylvania, Mrs. Cleveland, there, who evidently has seen better days, but now studies midwifery, with a view of practicing in Philadelphia. Mad. Alliot spoke of her in terms of the highest praise. Philadelphia ladies may therefore feel at ease.

I witnessed an *accouchement force* by forceps, rapidly and successfully terminated by Danyau. On removing the placenta and examining the membranes, a perfectly *round hole*, as if made by a bullet, was found on the part nearest the fundus uteri. On inquiry of the mother, she stated that she had been *wet* during nearly the whole period of gestation. There must have been a stillicidium amnii going on, and had the hole been on the lower part of the membranes, the amniotic fluid would have escaped entirely and abortion have resulted. Danyau, a man of 70, and 40 years in service, mentioned this to be the third case on record.

The *Maternite* is ill constructed, the rooms low, badly ventilated and lighted, and yet they hardly ever have an epidemic there. As a *maternite* it is smaller than that in Berlin, and of course not one half the size of that in Vienna. It is a pity that physicians are excluded; but, on the other hand, it is praiseworthy for respecting the delicacy and privacy so needful to parturient women.

The *Hopital de Lariboisiere*, of 612 beds, equally divided for males and females, but 408 for medical and 204 for surgical cases. This is the newest and the only handsome hospital in Paris. It is built in perfect imitation of the *Hopital St. Jean* in Brussels. It consists of six pavilions, separated by small gardens, and all six connected by an arcade. Each pavilion is three stories high, each story being one large hall. Of course, such an arrangement will secure ample light and air, and looks very cheerful and pleasant. The *medicins en chef* are: Pidoux, Tardien, Herard, Moissenet, Oulmont, and Duplay; the surgeons are Voillemier and Chassaignac. Monday is the operating day with the latter, and I regularly attend him; for he is racy, original, bold, and uncommonly instructive. Chassaignac has an *ecrasamania*. In most instances where other surgeons use a sharp cutting instrument he uses the ecraseur. Tumors are not touched with anything else. I saw him operate on three persons, each with a double fistula in ano, through which a tube de drainage was passed; he attached a thread to the tube, drew it through the fistula, and with the same thread the end of the chains of the ecraseurs (2) was drawn through, both worked at once, and both the fistulæ divided at once, without the loss of a drop of blood; no dressing was made nor required; the patients went on their way rejoicing. A *carcinoma* of the rectum as large as a child's head was removed in the same way, leaving a most awful gaping wound; no blood escaped, and the wound is healing kindly. I might multiply cases, but they are not new to any one. But he has has another new hobby, which he rides to death, upon which he recently published two large volumes—his *tube de drainage*, which he uses in *all* cases where a suppurative inflammation is established or desired to be maintained. It consists of small india-rubber tubes, perforated with numerous round holes, which are drawn through an inflamed organ by means of a trocar, as we would a seton, and there left. Nothing can surpass the beautiful immediate results af er such simple and most rational treatment. The tubes do not cause irritation. By their use mammary abscesses have lost all their gravity and terror. The remedy is cheap, easily applicable, and should be in every practitioner's pocket, as it certainly will be in less than a year. This and the treatment of fractures with gypsum exclusively, and never with splints, are the two greatest discoveries I have met with in Europe, and they are perfectly worthy to be perpetuated.

The *Hopital Saint Louis* has 853 beds; 524 for males, 329 for females; 647 for medical, 196 for surgical cases. This is exclusively for cutaneous diseases. The world has no other like it. In no form does disease appear more horribly disgusting than in the uncountable and unaccountable forms of skin diseases. The *medicins en chef* are Bazin, Cazenave, Hardy, Devergie, Gibert, Hillairet. The three first are celebrities of no mean order. Their works are standard: their classification is about the same as Willan and Bateman, and their treatment, even if better, is not more successful than ours, except in the management of *la gale* or the itch. One half of the patients coming to the *consultations gratuites* are affected with the *gale*. The furrow through which the acarus might have made his entry is sought after, and if it is found it establishes the character of the malady beyond question. The patient is told to come back on Saturday, the great rubbing day, and he will be cured in two hours. On that day, all the diseases that have accumulated during the week present themselves, and the following process is gone through with: 1. Rubbing the whole body for half an hour with strong black soap. 2. Bathing in warm water another half hour. 3. Then rubbed with an ointment consisting of sublimed sulphur, 1-6, sub-carb. potass, 1-12, lard 1 part, for another half hour. I am told that not once in a thousand cases does a relapse occur. It is a curious burlesque sight to see one hundred naked men or women rubbing themselves or each other; to see them go in covered with itch, and come out cured. Any parasitocidal remedy might do the same—hence turpentine, corrosive sublimate, arsenic, red precipitate, &c., would answer, without so much ado, and without danger to the patients. I do not admire their treatment half as well as Hebra's in Vienna. However, I will familiarize myself with it. I go there every morning from eight to eleven, and will continue to do so until January 1st. I dare say, in advance, that their practice would not be feasible with us; two-thirds of the patients would be better out than in.

I will close by briefly referring to the eye clinic of Desmarres, which I am attending daily from twelve to three. This is not a hospital, but a private dispensary of M. Desmarres, the first oculist of Paris. From 250 to 300 present themselves daily. The order observed is the following: 1. Those to be cauterized, and with lacrymal fistulæ. 2. The children. 3. New cases. 4. Those to be operated upon. 5. Those who have been operated upon. 6. Ophthalmoscopic inspection. Nos. 1, 2 & 5 are gone through with at the rate of four in a minute; with the others more time has to be taken. The clinic is chiefly conducted by Desmarres *fils*, a most promising, brilliant, and already prominent young man, in presence of Desmarres *pere*, who watches lovingly his hopeful son. It is incredible with what promptness and exactness he diagnosticates, and with what dexterity and safety he performs all minor operations. I asked him once, "*Comment pouvez vous faire le diagnostique, sans regarder le malade?*"

"*Je la flaire*," I smell it, was his answer. It almost appears so. As soon as one approaches, he calls out to the registering clerk the diagnosis and treatment, or orders him in the operating room, or in the dark room for the ophthalmoscope. This department is superintended by Dr. Golzenowsky, a Pole, long with Desmarres. The old gentleman performs all operations in a most graceful and skillful manner. Five to six operations daily, especially Mondays, Wednesdays and Fridays. Thursday is devoted exclusively to the opthalmoscope. Græf's clinic is more brilliant, but not so large as that of Desmarres. He is eminently practical and philosophical, like him. He is a double millionaire, and, like him has a practice of 250,000 francs a year, This clinic is founded and maintained by himself. Imagine the amount of good that man does in this world. Physicians from various parts of the world attend here, and pay twelve francs a month, which goes to the *concierge*. Desmarres *pere* accepts nothing. Desmarres *fils* gives private courses, at 150 francs a month, and so does Golzenowsky, at the same rate, for the ophthalmoscope. I am with both, and will continue while I am in Paris.

Solidified Glycerine or Plasma.

BY J. E. MACDONALD, M. D.,
Eye Surgeon to Demilt Dispensary.

An article, by V. Graefe, appeared in the *Archives for Opthalmology* for 1860 (Bd. vi. lib. 11,) on the composition and value in ophthalmic practice of Solidified Glycerine, or Glycerine Salve, in which it was stated that this had been first successfully made by Simon, and that the secret of his success consisted in the employment of a perfectly pure article of Glycerine. A communication had already been made to the London Pharmaceutical Society, by G. F. Schacht, in January, 1858, on a similar method of solidifying this substance (see *Jour. and Trans. Phar. Soc.*, Vol. 17. No. 8,) and the importance of its purity pointed out. The compound was called by Schacht Amylo-Glycerine or "Plasma;" his communication re-appeared in the *Journal of the Maryland College of Pharmacy*, for June, 1858. The Plasma was afterwards introduced to the Pharmaceutical Society of Philadelphia, and for some time was advertised and sold extensively in that city. But little has been known of it in New York as yet; and as the short experience I have had with it entirely agrees with the very favorable opinion of Dr. V. Graefe, I feel that no apology is necessary in laying its formula before your readers. The proportions used by Schacht were: Pure Glycerine, one ounce, pure Starch, seventy grains; by Simon, pure Glycerine, five parts, pure Starch one part. The mixture is to be gradually raised to about 240° of heat in a porcelain vessel, constantly stirred, and immediately when it begins to thicken taken from the fire, and the stirring continued till it is equally stiff throughout.

The salve thus formed is beautifully transparent, of the consistence of cold cream, unaffected by changes in temperature, and soluble in water. Besides the valuable therapeutic properties of the Glycerine, it has many advantages as a vehicle for topical applications, over the ointments ordinarily used, particularly in its more powerful solvent qualities, and in its more permanent character. When chemical changes do occur in it, the resulting new compounds, unlike those in fats, are entirely unirritating.—*American Medical Times.*

On Indian Hemp, particularly in Relation to its Property of Producing Sleep.

DR. FRONMULLER first employed the Indian hemp in the case of a phthisical patient in the year 1850, and since that time he has devoted himself to the especial study of the properties of this substance. The result has been the production of a treatise founded upon the clinical observation of no less than a thousand cases in which Indian hemp was administered. This plant has been very much extolled by many practitioners in various countries, but has lately fallen into disuse, owing to the supposed uncertainty of its operation. The discredit attached to it is attributed by Dr. Fronmuller partly to the contradictory statements published concerning its operation by various writers, and partly to the difference in its effects in the Eastern hemisphere compared with those observed in Europe. The Indian hemp of India and that grown in Europe present the same external form, but they differ in the relative proportion of narcotic resin which each contains, and which is the active principle of the plant. It appears that the amount of resin depends not only upon difference of latitude, but also upon the depression or elevation of the regions where the plant is grown. Chemical analysis has discovered that the Indian hemp contains gum, bitter extractive matter albumen, chlorophyll, ethereal oil, and a peculiar resin. This resin is called *cannabin* by some writers, and forms six to seven per cent. of the dried plant. The ethereal oil has been obtained by Martius only in a small quantity; it is of a slightly yellowish color, of a peculiar ethereal camphor-like smell, and an aromatic astringent, and afterwards bitter taste. The preparations of Indian hemp hitherto employed are the powdered plant for pills or powders, resinous extract of hemp in powders and pills, tincture of the resin, and emulsion.

With regard to its application to the practice of medicine, Indian hemp may be considered valuable as a tranquillizing antispasmodic drug. It has been employed with favorable results in tetanus and trismus, cardialgia, rheumatism, and in some mental diseases. Of 1000 cases in which this drug was administered by Dr. Fronmuller, 552 were males and 448 females, and the patients were of various ages, from one year to fifty and more. The principal diseases of the patients were tuberculosis, inflammation, surgical diseases, rheumatism, diseases of the eyes, nervous diseases and dropsy. The greater part of the cases were treated by the spirituous extract prepared by Merk in Darmstardt; but others were treated by the extract prepared by the late Jacob Bell, of London. It is to be observed that all the observations were made on cases in which there had been no sleep for several nights, and in which the continuance of sleeplessness was to be anticipated unless some narcotic was employed.

Out of the thousand cases it was found that the narcotic property of the hemp was completely developed in 530, partially in 215, and little or not at all in 255. With the extract of Indian hemp the best effects were produced 145 times with a dose of 12 grains, 64 times with a dose of 8 grains, 63 times with a dose of 10 grains, 35 times with 16 grains, 22 times with 3 grains, 17 times with 2 grains, 15 times with 14 grains, 14 times with 20 grains, 13 times with 6 grains, 12 times with 5 grains. The period of falling to sleep, and the duration of sleep in the cases, are numerically recorded by Dr. Fronmuller, and also the number of cases in which unfavorable results ensued on the day of taking the drug, or on the next morning. Comparative observations were also made with morphia in cases where the Indian hemp had failed. Out of 29 cases in which the Indian hemp had produced no effect, sleep was produced by morphia in 24. The dose of morphia was in general rather a strong one—from one-sixth of a grain to two grains—in order to induce sleep. In the remaining five cases the morphia produced no effect.

The conclusions to which Dr. Fronmuller arrives as the results of his observations are the following: 1. That Indian hemp among all the known medicines which cause stupefaction, is that which produces a narcotism most completely supplying the want of natural sleep, without occasioning any great excitement in the vascular system, without especial stoppage of the secretions, without the supervention of unfavorable consequences, and without subsequent paralysis. 2. That Indian hemp, on the other hand, is not so strong nor so certain in its operation as opium. 3. That Indian hemp may be given in all acute inflammatory diseases, and in typhus fever. 4. That it is worth a trial to alternate the Indian hemp with opium in cases where the latter fails. 5. That the best mode of administering is the alcoholic extract in small pills which contain an addition of the powder of the Indian hemp. The lowest dose for producing sleep may be estimated as eight grains given in pills of one grain each.—*B. and F. Med.-Chir. Rev.*, 1861, from *Vierteljahrschrift fur die practische Heilkunde*, 1860.

[It is proper to add a caution in regard to such large doses. If the extract be of the *best quality*, eight grains might not always be a safe dose.—Ed.]—*American Journal.*

On the Electrolytic Test for Arsenic.

BY PROFESSOR BLOXAM.

In a former communication on this subject he had shown that when arsenical compounds mixed with diluted sulphuric acid were acted upon by the current produced from four or five cells, arseniuretted hydrogen gas was liberated from the negative pole; but the arsenic did not respond to this test, and that the presence of mercury interfered with it. The author now obviated these difficulties by adding a small quantity of sulphuretted hydrogen water to the liquid during its electrolysis. By this means a ring of tersulphide of arsenic followed by one of metallic arsenic, is readily obtained, both from arsenic and from organic substances containing arsenic, which have been destroyed by chlorate of potash and hydrochloric acid. The sulphuretted hydrogen, moreover, precipitates the mercury, and thereby prevents its interference. It also precipitates any antimony that may be present, whereby the contamination of the arseniuretted hydrogen with antimoniuretted hydrogen is avoided. The author found that when antimony and arsenic were present in an organic substance, clear evidence of both metals could be successively obtained. The product of the action of hydrochloric acid and chlorate of potash upon the substance was introduced into the decomposing cell, whereby antimoniuretted hydrogen was evolved free from arseniuretted hydrogen. Afterwards, on the addition of sulphuretted hydrogen, arseniuretted hydrogen free from antimoniuretted hydrogen was evolved. The author observed that, according to his experience, sulphuric acid, as a rule, could be obtained more pure than hydrochloric acid. Moreover, he had found various samples of caustic potash to be contaminated with arsenic. Sulphuretted hydrogen, prepared from diluted pure sulphuric acid and sulphide of iron was found to contain traces of arseniuretted hydrogen.—*London Lancet.*

Embolia and Thrombosis.

It is now nearly fourteen years since the theory of the detachment of fragments of vegetations from the valves of the heart, and from coagula in the large veins, and of the consequent secondary occlusion of the minute arteries, was first propounded by Virchow. The term *emboli* has been applied to the small plugs detached from the valves of the heart; *thrombi* to those derived from the veins. The effects produced in the different organs by these obstructions, and the entire doctrine of embolia and thrombosis, have of late been the objects of considerable investigation. A most elaborate work upon the subject has recently been published by Professor Cohn, of Berlin (*Klinik der embolischen Gefasskrankheiten mit besonderer Ruckeicht auf die artzliche Praxis*, 8vo., Berlin, 1860, p. 696). Still more recently, an able memoir, on the same subject, and a review of the entire doctrine of embolia have been published in the first number of *Schmidt's Jahrbucher* for the present year, by Dr. H. Meissner, of Leipzig. He considers the subject under the following heads:

1. Obstructions of the cerebral arteries.
2. Obstructions of the veins and sinuses of the dura matter.
3. Obstructions of the aorta and arteries of the lower extremities.
4. Obstructions of the pulmonary arteries.
5. Obstructions of the gastro-epiploic, splenic, and other abdominal arteries.

Particular attention is devoted to emboli of the cerebral arteries, of which the author has collected 32 cases from various sources. From these cases the following conclusions are drawn:

1. Both sexes are equally liable to cerebral arteries. Of the 32 cases, 15 were females and 17 males.

2. As to age, 11 of the cases were between 14 and 30 years of age; 10 between 30 and 40; 5 between 40 and 50; and 6 between 50 and 60.

3. The left half of the brain (16 cases) was more frequently affected than the right (11 cases). In 5 of the cases, the obstruction was in the middle line, and both sides of the brain were affected.

4. The most frequent site of the obstruction was in the celebral cartiod (nine times in one and twice in both); the next in the profunda cerebri or posterior cerebral artery (8 cases); and the next, in the artery of the fissure of Sylvius (7 cases). It was in the basilar artery in 4 cases; in the vertebral in 2 (in one of these both verbetral arteries were blocked up); and in the arteries of the corpus callosum, in 2 cases.

5. Softening of the corresponding parts of the brain almost universally follows the obstruction. In two only of the cases was there merely hyperæmia of the cerebral matter; and in two others no change whatever could be discovered.

6. In all but two cases, there was paralysis on the side of the body opposite to that of the obstruction.

7. Loss of consciousness during the attack was only observed twelve times.

8. The attacks were almost invariably sudden (30 cases). In two cases only had there been premonitory symptoms. Eight times, repeated attacks of paralysis had occurred. In one case only was the commencement of the paralysis gradual; while, in one other, its mode of commencement was unknown.

9. The heart was diseased in 25 cases. In 23 cases there was disease of

its walls or valves; in two there was merely hypertrophy; and in one case there was an aneurism of the ascending aorta. In seven cases, nothing abmormal could be detected in the heart.

10. In 15 cases there were obstructions of vessels in other parts of the body, or infarctions.

11. Among the co-existing diseases, phthisis, syphilis, and alcoholism were the most frequent.

From these cases, collected by Dr. Meissner, it is obvious that the so-called emboli of the celebral arteries cannot always be derived from vegetations on the valves of the heart. Cases are quoted from Bristowe, Jenner, Tungel, and Hasse, where there were all the ordinary appearances of emboli of the cerebral arteries, but where the heart was perfectly healthy, and where no other source could be discovered in the body from which clots could have been detached. In such cases the lesion must be attributed to a local coagulation or spontaneous arteritis.

In the case of the pulmonary arteries, the plugs may be derived from coagulation in the larger veins, or the coagulation may be of a local character, and result from a morbid condition of the blood, from dilatation of the right side of the heart, a firm fatty degeneration of its muscular tissue. Either of the two last mentioned causes will impede the progress of the blood through the lungs, and so favor its coagulation and the development of obstructions.—*American Journal for April.—British Med. Journ.*, from *Schmidt's Jahrbucher*, 1861, No. 1.

A JUNIOR MEDICAL SOCIETY IN LONDON.—It is with pleasure we observe that the students of London are taking steps to fill an important hiatus in their present organization by a vigorous attempt to form a union of hospital medical societies, and to establish a Junior Medical Society of London. The complete isolation of the various bodies of pupils pursuing their studies at the metropolitan hospitals has often been regretted. Trained for the same duties and a similar career, possessing a common interest and like sympathies, they have hitherto been devoid of means of mutual acquaintance and communication. It cannot be doubted that a very beneficial influence might be exerted by the establishment, for the discussion of medical subjects, of a Junior Medical Society, which should include the students of all the London medical schools, and those who, having more or less recently emerged from that position, are allied to them by late sympathies and friendships.—*Lancet.*

RUPTURE OF ANEURISM OF AORTA BECOMING AGAIN CLOSED.—The specimen came from a man aged sixty, who died in Guy's Hospital, under Dr. Wilks' care. On admission he was suffering from dyspœa, dropsy, and all the usual symptoms of advanced cardiac disease. On auscultation, however, only the faintest bruit could be heard over the valves. A few days afterwards, the patient was found to have acute pericarditis, and the well-marked signs of this continued for some time, when they disappeared, and the patient resumed his regular condition. The dropsy, however, increased, and he slowly died. The post-mortem examination showed that the symptoms were due to an aneurism of the ascending aorta, which had caused considerable pressure on the pulmonary artery; and that the pericarditis was owing to a rupture of the aneurism into the pericardial sac, but not to such an extent as to constitute a fatal hæmorrhage. About half an ounce of grumous blood was found mixed with the lymph.—*London Lancet.*

On the Nature of Death from the Administration of Anœsthetics, especially Chloroform and Ether, as observed in Hospitals.

Dr. Charles King read an interesting paper on this subject before the Physiological Subsection of the British Association for the Advancement of Science. We are indebted for the following abstract of this paper to the *British Medical Journal* (Sept. 22, 1860):

From data already collected and tabulated, it appeared not difficult to explain and to offer some new directions as to the nature of death from anæsthetics, a subject of serious importance in medical practice; and the author having collected and tabulated 109 deaths from chloroform and 24 from ether (including two from amylene,) believes himself in a position to give an explanation of these accidents.

Of these 133 deaths, 90 occurred in male patients; and about half, or 43, were females, though anæsthetics have been largely used in midwifery practice. Accidents in children, too, have been almost unknown, though chloroform has been used in such cases very extensively; this immunity from danger in diseases of children and women being very marked.

There have been already about from 250,000 to 300,000 operations of various kinds performed under the influence of anæsthetics, chiefly under chloroform, including every variety of serious surgical accident; several hundreds of the patients had been, for such very serious operations as resections of joints, large amputations, ovariotomy and other female cases, ligature of large arteries, &c., more than an hour fully anæsthetized; yet in this large mass of serious surgical operations, there has not been any well attested instance of death from stoppage of the functions of life, or narcotism of the system by the chloroform. On the contrary, fully 80 per cent. of the deaths, and nearly all the deaths from chloroform, had occurred in trival operations, from very small doses, *suddenly*, before the anæsthetic had produced its full effect. It was not sought to be argued (though not very clearly established) that death in the human subject might not be produced by long-continued inhalation of chloroform; it seemed only established that this was not at all the mode in which deaths had been observed to occur in hospital practice.

The author suspected that, anæsthesia once established in a favorable subject, respiratory action was diminished, and that inhalation or normal respiration continued on a diminished scale also, almost after the manner of hybernation in warm-blooded animals; but, respiration once disturbed, attended by spasm of the glottis through the recurrent laryngeal nerves, especially in strong, healthy but nervous subjects, for trival operations, as tooth-drawing, whitlow, strabismus, caustic to warts, &c., death might occur, and usually had occurred, from a few drops of chloroform. Nevertheless, a law of tolerance of chloroform had been long established in hospitals, that where a patient was laboring under old disease, pains of a neuralgic kind, &c., he bore chloroform best; patients with long continued stertor had taken thus a pint of chloroform in well regulated doses at a single inhalation; one lady had sixty-two ounces in twelve days for intense pain, with good effect; another, two hundred ounces in six months, also with beneficial result!

The best mode of examining the statistics for further use, according to Dr. Kidd, was twofold; first, inductively; and then by comparing certain large groups of facts loosely one with another, and forming other conclusions *deductively* for application in every-day practice.

Single positive instances, the author thought, did mischief logically in a subject so essentially deductive, as the examination of groups of facts connected with anæsthetics. A single instance in a purely physical science will determine the fixed atomic relations of a salt or oxide, or the diagonal of two forces or measurement of angles, targents, or equations, &c.; but in disease and discussions on disease, the single facts are, though positive, so varying and exceptional, the disturbing forces in disease so active and numerous, that we must have recourse to groups of similar facts, or facts tending in a particular direction (statistics) and see how we may reason from what is known to what is still dubious or unknown.

It seemed well established that excitation of certain parts of the excito-motor apparatus in the nervous system produced contraction or spasm of distant parts, such as bloodvessels, muscles, &c.; thus there are spasms of the parts of the neck, laryngismus, trachelismus, spasm of the glottis, and in actual practice under chloroform these are more to be feared than deep insensibility with stertor.

As to the somewhat casual or accidental nature of some of the deaths from chloroform, there was every year additional proof. Of 45 deaths collected by Dr. Snow, he believed five or six were from fright on the operating-table. Chloroform, it might be remembered, has now to bear the obloquy of all the preliminary mischief in operations formerly placed to the account of something else. It was curious that nearly all the deaths happened before operations, and seldom, indeed never, as the result of a long tedious operation. In 85 deaths classified, 17 were operations for hæmorrhoids, fistulæ, &c.; 14 were operations for removal of toe-nail, necrosed finger-bone, &c.; 10 were cases of tooth-extraction; 11 were operations for removal of tumors and such like; 9 were deaths from minor amputations; 6 were strabismus operations, cysts of eyelids, &c.; 9 were operations on the testis; 5 were reduction of dislocations; 1 was hernia; and 5 were delirium tremens. The broad general fact that in 300,000 operations of all kinds, chloroform had decidedly saved 6 to 10 per cent. of lives, also tended to show that the cause of death was of a casual nature.

Looking broadly at the facts, it was found by the author that the deaths from chloroform were all sudden, and many of the nature of "fit." Chloroform has a powerful irritant action of the pneumagastric in the lung; and a like irritation by electricity, as now known, stops the action of the heart. Hence syncope may possibly occur, if this irritation or spasm of the pneumogastric and laryngeal nerves be reflected to the heart.

Chloroform, as a general fact, has had a good effect on the general result of operations in surgery. Where it has acted badly, as shown by statistics, it has probably been from a tendency of patients themselves to put off surgical operations too long, changing primary into bad secondary operations. Probably 10 per cent. of lives are still directly saved by chloroform yearly (comparing the present surgical death-rates and those in existence immediately prior to the discovery of anæsthetics in 1846). This showed, according to the author, that the cause of death from chloroform must also be of a casual or accidental nature, rather than arising *ex necessitate rei*. A large number (one-fourth) of the patients also in whom death had occurred had taken chloroform before with perfect safety; one patient, a hundred times. This also corroborated the view that the cause of death is more of a casual nature than due to idiosyncrasy or the general tendency of anæsthetics.

This fact of deaths from chloroform occurring in trivial operations, and early in the administration, or in the stage of excitement, had been remarked by all the chief observers—M. Robert, of Paris, M. Denonvilliers, Mr. Paget, Dr. Snow, &c. It was believed to be due to diseased heart; but this opinion had not been borne out by any group of facts; while there was the larger negative clinical fact that hundreds of surgical patients with diseased heart have had chloroform with entire safety; and that, in by far the largest number of cases of death, the heart was healthy, and the symptoms were referable to the brain. Thus, in 18 deaths, the only instances where *post-mortem* or other examination has shown any lesion, 5 deaths were the result of delirium tremens; 8 had cysts in the brain meningitis, &c.; 2 had chorea; and there were only 3 where traces of diseased heart were suspected or found. Then, of 45 deaths collected by Dr. Snow, he believed 6 were from fright or emotional depression on the operating-table, evinced by intense nervousness; while, as regards the 24 deaths from ether, they seem to have occurred from extreme muscular relaxation, exhaustion and hæmorrhage, favored by this condition, after, not before, operations.

There had been probably twice as many patients saved from impending death by chloroform by proper restoratives, as the number that have succumbed to its influence. All these restoratives have been directed to excite the brain and reflex system of nerves; and it is to be feared some patients were lost by venesection, used on the theory of fatty or obstructed heart. The author had found that intoxication, or delirium tremens, and hysteria, strongly contraindicate the use of chloroform; and a fact of a very curious kind, belonging to the same category, had been somewhat recently dwelt on in the battles of the Crimea, in India, at Solferino, &c., that all nervous frightened prisoners are acted on with much difficulty, and not without danger, by chloroform; excess of emotion, acting like excess of sensation, necessitating very large doses of anœsthetics—a state of "exaltation of sensibility" not very far removed from that which causes the spasm of the glottis, trachelismus, &c., in fatal cases. As to delirium tremens, Dr. Snow does not seem to have suspected it; but of 45 deaths the author collected (independent of suicide cases, all through these researches omitted), he finds 9 cases probably due to intoxication or delirium tremens, though some were put down to other affections or surgical operations.

In ten cases very carefully described by accurate observers, in four there was evident sign of the heart still beating, though the respiration had ceased —one by Langenbeck; one by Mouatt in the Crimea, the single case of accident there ("death from removal of finger; patient became violent; spasm of larynx occurred; heart's action continued even after pulse and respiration"); and two others; so that it is not impossible that, if this phenomenon were watched, it would be detected more often. It appeared to the author, indeed, that we should never be safe in chloroform administration, if the heart, as he believes it to be, were not one of the *very last parts*, if not the last, to be depressed by chloroform; and he rather feared implication of the respiratory tract, in the laryngeal nerves, *nœud vitale*, pneumogastrica, &c., and a disturbance of their delicate balance.

The chief conclusions arrived at were:

1. There is little, if any, benefit in choosing ether in preference to chloroform, as an anæsthetic. In "ether mixtures," the ether is first inhaled pure. Ether is to be especially avoided where we have excessive hæmorrhage or muscular relaxation to fear; though in such cases as reductions of dislocations, and in midwifery, it has some points in its favor, but not in the shape of mixture with chloroform.

2. There is less cause of apprehension in administration of anæsthetics in the cases of children and females, and in serious surgical operations, provided the anæsthetic is administered skillfully, than in the cases of men of robust frame, especially if given to intoxicated habits, or the operation be connected with tendinous parts, so often followed by syncope without chloroform.

3. All hospital experience tends to corroborate the view that there is a very remarkable "law of tolerance" of chloroform observable in all bad surgical cases. Once the conjunctiva of the eyelids is insensible, the eyelids closed and normal, anæsthesia kept up with ordinary skill, there is a period of safety, with diminution of respiratory action, established almost like

hybernation, but which leaves the heart unaffected. That this, rather than a single instance of death from diseased valves and chloroform; that this, seen in tens of thousands of cases, should encourage the most hopeful views on the diffusion of anæsthetics.

4. Idiosyncrasy has probably very little to do with these accidents, if we omit intoxicated habits, hysteria, tendency to "fits," &c.; so that "trials d'essai," so common hitherto, or placing a patient under several doses of chloroform on previous days to a surgical operation, is a mistake. A patient may have chloroform a hundred times, but die of its effects on the next or hundred and first.

5. There are evidently two modes in which our common anæsthetics may cause death, which require watching; ether, at some distant but uncertain interval during tha first twenty-four hours after a surgical operation; but chloroform, like lightning, in an instant, if the inhalation be not stopped. Probably in one half of the latter cases, at least, the heart, as in asphyxia, is still beating; the action being more like an irritant one on the laryngeal recurrent and pneumogastric nerves; the other cases are instances of syncope, of convulsive fits, &c.

6. In several cases of death—as in delirium tremens cases, to wit—death occurs because ordinary restoratives do not act, as we have an imperfect reflex and nervous system to work with; but, in all cases of impending death, we are justified in at once having recourse to such means, viz., artificial respiration by pressure, as it acts also on the cavities of the heart; tracheotomy, if we have to fear this form of spasm or asphyxia (the engagement of the double respiratory centre of the pneumograstric being very puzzling under chloroform, but rather of the nature of spasm); sudden cold dashing of water, to wake up the respiratory nerves; fresh air fanned in the face, &c., too much not to be done at first, as the spasm may subside. Acupuncture of the muscles of the neck is also recommended, so as to irritate the spinal accessory and phrenic, but not the eighth pair of nerves.

7. Hitherto our experience of this spasmodic irritant condition, and our experience of oxygen gas, galvanism, &c., as restoratives, have not been encouraging; these agents being too irritating, and requiring very exquisite skill to apply them, especially galvanism, which hitherto has only, it is to be feared, done mischief. A better restorative seems to be the injection of warm wine into the rectum, or, as tried in animals poisoned by chloroform, transfusion of any simple saline fluid into the veins, as in the analogous collapse of cholera.—*American Journal.*

RENAL CALCULUS.—Mr. Croft showed a specimen of calculus in the kidney. It was lodged in the pelvis, and was the cause of death. The ureter was contracted, the kidney structure absorbed and dilated, and portions of neighboring tissues were in a gangrenous state. It occurred in the case of a woman, aged thirty-three, who had suffered, according to her own account, only three years.—*London Lancet.*

GLYCERINE AS A SOLVENT FOR BELLADONNA.—M. Foucher recommends the solution of belladonna in glycerine, instead of water, for the purpose of applying it around the brow to produce dilitation of the pupil. The extract is thus prevented from drying into a hard crust, and a greater certainty of the absorption of the narcotic is insured.—*St. Louis Medical Journal.*

On Diphtheria.

BY A. CLARK, M. D.,
Professor of Pathology and Practice of Medicine.

AT a lecture delivered in the College of Physicians and Surgeons, New York, Dr. Clark said, among the specimens of diphtheria exhibited to you the present session, you will remember the tonsils, uvula, larynx, trachea, and fine divisions of the bronchial tubes of an adult lined by false membrane. The patient from whom the specimen was taken had been suffering from typhoid fever for two weeks at the New York Hospital, when he was attacked with symptoms of croup, and died in a few days, tracheotomy having been unsuccessfully performed. Several cases of a similar character were seen at the same hospital during the epidemic of typhus some years ago, in patients affected by that disease. It seems to have occurred in these cases after the completion of the second week of the fever. M. Louis (Arch. Gen. de Med., tom. iv, 1824) has reported two cases of membranous exudation in the air-passages, and the usual symptoms of diphtheria in patients having typhoid fever. One was a person 23 years old, who had been fourteen days in the hospital before the symptoms of the membranous disease began. The other was a boy aged 15 years. Dr. Greenhow (On Diphtheria, p. 76) reports that Dr. Heslop, of Birmingham, found in Nov., 1858, that of four cases of typhus fever occurring in one house, two of the patients had membranous exudation in the throat. In one of these it is stated that the patient, a girl aged seven years, had suffered nearly a fortnight before the appearance of the throat affection. In the other case the time of the occurrence of the latter is not mentioned. M. Louis's cases are described ,under the title, croup in adults; but as diphtheria was prevailing at Paris at the same time, it is more reasonable to refer them to this class.

Thus, gentlemen, from these cases and statements, you may form some idea of the length and breadth of the influence of this disease.

I shall now call your attention again to the symptoms, and enlarge a little upon some that have been already referred to, and speak of one or two that have not yet been named. I have told you that *vomiting* is not unfrequently an early symptom; as an early symptom, it is of not very great importance. It occurs also frequently in the latter part of the disease, and then it is not unfrequently of considerable moment, as it interferes with the regular administration of the means on which you have relied for recovery. As a rule, children vomit easily, and they are less exhausted than adults; yet it is an unfavorable symptom, inconvenient in every respect, and exhausting even in them. Its disastrous influences may be better appreciated if I give you a synopsis of a case of Dr. Thayer, as reci ed in the excellent paper in the first number of the *Berkshire Medical Journal*, just issued. In 1857, a patient, 13 years of age, had very moderate diphtheritic inflammation of the fauces. Partial improvement nine days after the attack; rode to doctor's office on the fifteenth day; again confined to house; soon to her bed; the throat but moderately swollen, and the false membrane continued; vomited daily, with daily increasing weakness; at length very restless, and on the twenty-fifth day, in her uneasiness got out of bed, and died of syncope a few minutes after. She had had no hæmorrhage, and no laryngeal diphtheria, but the vomiting could not be controlled, and she grew weaker and weaker under its influence.

It was but yesterday, in the practice of Dr. Blakeman, that a child about five years old, that had been suffering for about a fortnight with diphtheria of the fauces, without any alarming symptoms, began to vomit. The vomiting was not readily controlled. No food or medicine could be retained. We resorted to nutritive injections, but last night she sank into a kind of syncope and died. There was no dyspnœa, no hæmorrhage, and yesterday morning no alarming frequency or irregularity of the pulse.

In regard to the time of the occurrence of the membrane, this varies exceedingly in different cases; in general it appears on the second or third day of the febrile movement, when there is a febrile movement; but in other instances it will be delayed to the fourth, fifth, and sometimes as late as the tenth or fourteenth day, there being a little febrile action all this time. Such a case I saw quite lately in a lady 45 years of age, the wife of a physician. For nearly fourteen days she had suffered from sore throat, that annoyed her very much, altering her voice considerably. At the end of that time the membrane formed for the first time upon the epiglottis, making a sort of glove or cap for it. It was arrested, however, at this point, and did nothing more than put her to a great deal of inconvenience and alarm. She recovered readily.

The disposition of this membrane to recur is one of the most striking things in its history. It will be renewed two, three, or four times in the first ten to twenty days, and it is reproduced, often extending. At other times you see it exfoliate, and show no disposition to return whatever. If it were possible to fix a period of average duration, I should think it would vary little from ten days. The color of the membrane is very variable. Often at the beginning it is of snowy whiteness, or in thin layers translucent; as it increases it assumes a yellowish hue, or an ash color, if the blood or ferruginous medicines are incorporated with it, it becomes of a dark hue, often quite black. Often the patches on the tonsils are surrounded by a very marked deep red circle, and the membrane appears depressed in consequence of some swelling in this red zone. When portions of the membrane separate from portions that are still attached, it has a shreddy, sloughy look, resembling loose cotton saturated with pus, and is commonly of a light grey color, or of a dirty yellow.

In a few cases convulsions are an early symptom. I have already told you that convulsions not unfrequently terminate this disease; but they occasionally occur as one of the earlier symptoms. I have the minutes here of a case in which they occurred in a child four or five years old, two children in the same family being seized with diphtheria at the same time. The symptoms were almost exactly analogous, except that the younger child, in whom the disease proved fatal, was sleepy for two or three days before any membrane was noticed in the throat, but was very bright afterwards. He died of trachal diphtheria. The other child, seized at the same time, had the same degree of fever, had convulsions two or three in succession, but had only a local inflammation, that is to say, membrane appeared upon the tonsils, exfoliated in two days, reappeared three days afterwards, was threatening for a time, but did not descend into the larynx nor ascend into the nares, and she recovered. Dr. Kneeland, in the *American Medical Times*, reports two cases where the disease was attended by convulsions in the beginning. They had not occurred before in any of these children. It does not appear, from the few cases reported, that convulsions are very alarming in the earlier period of the disease, but at the conclusion they are of the utmost importance.

The pulse is interesting. Usually in the beginning of the disease it is rapid, in the child, 120 to 140, supposing the invasion to be decided. In the insidious cases we have but little means of knowing what the pulse may be, because our attention is not then called to it. As the disease advances, there are three things specially noticeable in the pulse. In some it continues at a pretty rapid rate during the whole of the disease; in others it is rapid for a certain time, and then almost suddenly falls off to some small number, 56, 50, or 40 even, and remains there, without any cause that we can distinctly ascertain, for three or four days; and in others still its striking feature is extraordinary irregularity—rapid, interrupted, and irregular in all respects. Among these peculiarities, I think I have learned to regard the irregular pulse in the advanced periods as of the gravest importance. A rapid pulse can be borne for a considerable time, and still a child may recover; and the infrequent pulse, as I have met it, is not among the most alarming of the prognostics; but a marked irregular one is that which gives me the gravest anxiety. I know of no one symptom, the difficult breathing alone excepted, that is more indicative of an unfavorable issue.

A circumstance that will early attract your attention is that while there is much inflammation of the throat the patient makes but little complaint of *soreness*. There seems to be in these parts in certain cases a sort of local anæsthesia, whether muscular paralysis exist or not. A physician, about 35 years of age, felt the first symptoms of illness, of an afternoon in his carriage, while performing his usual round of duty. He soon had a severe chill, followed by high fever. This was interrupted by another chill, which in its turn had its fever, and before the evening he had still a third chill, followed by heat—all the time headache, vomiting, prostration. I saw him the next morning. His pulse was then 140; his face flushed and almost turgid. He had no soreness of throat, he said; but the tone of his voice announced swollen tonsils and an inflamed palate, and his febrile symptoms led me to the conviction that he had the diphtheria. Patches of false membrane, as large as a dime, were found on each tonsil, while the external glands of the neck were moderately swollen—yet this case, so vigorous on the onset, was mild in its progress. He took tincture of iron, without any application to the throat, unless perhaps he used a gargle of chlorate of potassa. In two days the membrane disappeared, and in one day more he resumed his professional labors. It happens, perhaps, in one-half of the cases that no complaint is made of sore-throat, and there is no great difficulty experienced in deglutition; but there is often in children an extreme unwillingness to make an attempt to swallow.

It is worthy of notice, also, that the voice in tracheal diphtheria does not seem so uniformly affected as in croup, or rather it does not seem to be affected to the same extent. A great many children who are actually suffocating with this disease, from the embarrassment to the respiration, can speak aloud; some again can only whisper. The croupy cough is almost a constant symptom in tracheal diphtheria, occurring as it does in ordinary croup and from a similar cause; still Dr. Gottschalk reports two cases shown to be membranous disease by dissection after death, fatal from suffocation, in which the peculiar barking cough was not present at any time.

The condition of the *mind* is a point of some interest. In many of the children, no matter what characters this disease may take, the mind remains sound to the end; in others there is pretty active delirium during the middle stages of the disease; and still in others at the end there is coma; it occurred in the case that I just now referred to, recorded by Dr. Buck. In adults, delirium is sometimes the most prominent of the symptoms. This was very marked in the father of the affected family at Elizabeth. While his children were sick with scarlet fever and diphtheria, he suffered from diphtheria with but moderate febrile excitement; delirium commenced early in the disease, and continued until the throat symptoms began to subside. Somnolence is not an unfrequent occurrence in the early and middle periods.

You hear a good deal about the fœtid breath of diphtheria. It is not by any means a constant occurrence; you will perhaps see ten cases before you find one in whom this peculiar odor of the breath is very striking; when you perceive it, it will be decided. It has been ascribed to the decomposition of the false membranous matter that has been produced during the disease; but this is not all. I saw, for example, only a few days ago, a gentleman who had had diphtheria, and in whom the membrane had all disappeared; only a cough remained over, and his breath was so fœtid that his physician was fearing gangrene of the lungs. It was for the purpose of discovering whether gangrene existed that I was invited to see him. I could, however, find none; there was nothing but that peculiar fœtor that is occasionally noticed in fœtid bronchitis. It seems to be the result of a morbid secretion from the mucous membrane. But, remember, you are not to expect its occurrence very often. I was led to suppose, in reading of this disease, that fœtid breath was almost its diagnostic mark.

Diarrhœa.—This is occasionally noticed as a complication, and is very often a grave one. Diarrhœa occurring in the latter part of the disease, is more apt to present itself in those who are already debilitated, and will sometimes be the immediate cause of death. It is therefore desirable that it receives early attention, coming on at this period.

Albuminuria.—I find, on examining my own notes, that the question of the existence of albumen in the urine was one that occupied my attention early in the epidemic. I am able to give you nothing more in regard to it than has been already written; it does occur in a moderate proportion of cases, and as yet no one has ascertained what is its significance. Cases in which albuminuria has been observed get well as others do.

The swelling of the fauces is occasionally noticed as a cause of great embarassment where the larynx and trachea are entirely free. This was remarkably true in the case of the gentleman at Elizabeth just referred to. His breathing was difficult and noisy when awake, but sleep for two or three days at the height of his disease seemed to be impossible. The moment he lost himself the inspiration seemed to be interrupted, and after three or four unsuccessful efforts to effect it he would wake partially suffocated and alarmed. Expiration was not difficult. This seemed to arise from the relaxation of the swollen tissues of the fauces consequent upon sleep, these falling upon the larynx so as to stop the opening of the glottis. An embarrassment arising from a similar condition had been noticed in many other cases.

Coma, as you have already been told, is occasionally a termination of diphtheria, and it is a question yet to be decided whether that coma is the result of uræmia or not. In a word, here is a point in the symptomatology of the disease which has been very inadequately investigated, and I commend it to you as the subject of particular study, and, indeed, the whole subject of albuminuria in diphtheria.

I will delay you to-day a few minutes longer to consider one question more regarding diphtheria. Is is *contagious?* I have here rather copious notes from the authorities regarding this matter, and will cite to you the substance of them. Bretonneau, who is the first and principal authority in regard to most questions that are now agitated regarding diphtheria, entertains no manner of doubt of its communicability. He assumes that diphtheria was imported into Greece by numerous Egyptian colonists, and was known there as the Egyptian disease; and that the time at which this importation occurred was nearer to that of Homer than that of Hippocrates. I am sure I cannot tell from what authority he has derived this statement, but I believe it is very generally conceded by those who have looked into the chronology of diphtheria, that the first indication of it is given by Aretæus. I know from my own research that he does intimate how long it had been known. I am therefore disposed to assume that there is in this assertion something after that straining after effect for which Bretonneau may be sometimes justly blamed. The diphtheria is undoubtedly the Egyptian or Syriac ulcer of Aretæus, but when and how it was introduced, I do not know that we have any evidence whatever. "The land of Egypt," says Aretæus (Adams's translation), "especially engenders it, the air thereof being dry for respiration, and the food diversified, consisting of roots, herbs of many kinds, acrid seeds and thick drink, viz., water from the Nile, and a sort of ale prepared from barley. Syria also, and more especially Cœlo-Syria, engenders these diseases, and hence they have been named Egyptian and Syriac ulcers." The assumption that it was brought from Egypt into Greece implies its contagiousness. Bretonneau is convinced that it is communicative from person to person by contact, as syphillis is; and he gives several instances, mostly from the observations of Trousseau and Ramon, of its being communicated by direct inoculation. The following is one of his cases: At the Ecole Militaire, in 1826, four pupils and one sister of charity had died. A pupil having excoriated chilblains, wetted his foot in a little pool of sputa at the bedside of one of the first patients. An excessively painful ulceration was the consequence; it was established between the toes, and was covered with false membrane. The Egyptian disease thus inoculated, yielded only to the employment of a solution of nitrate of silver, and after to the "soothing and cicatrizing action of calomel." In the table relating to cutaneous diphtheria given in a previous lecture, an instance is referred to in which Trousseau and Ramon saw a woman who had contracted diphtheria of the nipple from suckling an infant who had buccal diphtheria. The inflammation in the mother extended to the breast, with the production of false membrane, and exceedingly painful swelling.

Several instances are recorded in which physicians, either in examining the throat of patients, or in performing tracheotomy, have been sprinkled with this secretion by the coughing of the patient, and have afterwards suffered from the disease.

Bretonneau publishes the case of Dr. Herpin, Surgeon of the Hospital of Tours, as follows: "I attended," says Herpin, "a child with pharyngeal diphtheria in angina, which had become croupal. It yielded to energetic cauterization with solution of nitrate of silver, frequently repeated for six days. A nurse, who took care of the child, was attacked with pharyngeal diphtheria, and soon yielded to local treatment. The child being intractable coughed, and violently threw out the sputa. The orifice of my left nostril once received some of this excretion, but being obliged to continue the cauterization, I had no time either to wash or wipe the part. A few days afterwards, there was snuffling on the left side, and nasal voice, then suddenly painful pharyngeal angina, sleeplessness at night, extreme uneasiness, weakness, coldness, and pain. In the morning both tonsils and the uvula were completely enveloped in a white incrustation. Three times a thimble of false membrane enveloping the uvula was detached and reproduced. Deglutition difficult, sputa abundant and fetid; stools loaded with false membranes," etc.

Bretonneau also gives the following: "A short time after the inoculation of nasal diphtheria under which Dr. Herpin nearly sank, my friend, Dr. Gendron, of Chateau du Loire, being obliged to perform tracheotomy, received on his lips, at the moment of opening the air tube, a shower of tracheal exudation thrown out by a convulsive fit of coughing. Pharyngeal diphtheria was the immediate effect of this accident. Originating on one tonsil, the special phlegmasia so rapidly reached the larynx that I was was obliged to have recourse to energetic treatment. The cure was rapid and complete, and none of the symptoms of constitutional diphtheria were developed."

Within a few days it has been announced that Dr. Gendron, of Tours, perhaps the same physician referred to in the last case, had died of this disease, having had his face covered with the secretions from the throat of a woman suffering from diphtheria, during tracheotomy. This certainly looks like contagion. It is not a year since that Baltimore has had occasion to lament the death of a distinguished and learned physician, whose disease seemed to be acquired during the performance of the same operation. Soon after performing tracheotomy for diphtheria, Dr. Frick began to suffer from sore throat, which terminated in membranous disease of the larnyx. Tracheotomy was performed, but it was unavailing, and he died. It does not appear in his case that there was any actual contact of the diseased secretions with any of his mucous surfaces.

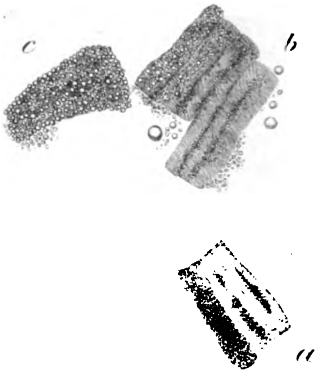
In opposition to this opinion of Bretonneau, "that true inoculation is the only mode of transmitting the Egyptian disease," we have to remark the complete failure of the attempts which have been made to produce this affection by the application of the morbid products to the tissues of men and animals. Both Bretonneau and Trousseau have attempted to inoculate their own throats with this disease, and both have failed; the latter made one puncture on his arm, and five or six on the velum pendulum palati. On the arm a visicle was produced, but no result on the mucous membrane. Quite recently, Dr. Peter, of the Children's Hospital in Paris, has added his personal experience in inoculation, and like Bretonneau and Trousseau, failed to produce any specific disease.

Instances are reported by Greenhow of attempts to inoculate the inferior animals, all of which were unsuccessful. Bretonneau says, "I have made some ineffectual attempts to communicate diphtheria to animals."

Most of the later French and English authorities agree with Bretonneau in the general fact that the disease is communicable, but very few assent to his doctrine of exclusive and literal contagion. The facts usually cited as evidence of contagion are—the disposition of diphtheria to spread in families when it has occurred in one member; the spread of the disease in hospitals from bed to bed, and its disposition to confine itself to particular wards; its production in families and places previously healthy, as the sequence of the introduction of persons from infected families and places, who have fallen sick at their new residence. On the other hand, it is well known that the disease is often confined to one person, though surrounded by those who are believed to be liable to it; and it is well known that outside epidemic influences often simulate very closely the effects of contagion. I suppose we shall be obliged to sum up the matter in a few words, and say that the strength of the argument is upon the side of contagion. My own observation has given me but limited opportunities of observing its communicability. I believe, however, we should not be justified did we not take certain precautions in the chance that it might be communicated. It will, doubtless, take a good while to settle the question satisfactorily; it has taken a long time to determine whether typhoid fever, scarlet fever, and measles were communicable; and it took a long time to determine that yellow fever was not communicable. In the meanwhile, my conviction is that it is our duty to remove healthy children from those that are infected, and also to forbid the use of table furniture and linen appropriated to the sick, by any other members of the family; and not to use a spoon or other instrument with which the tongue of a diphtheritic child has been depressed, for the same purpose in another child, until it has been thoroughly cleansed.—*American Medical Times.*

SUCCESSFUL OPERATION OF TRACHEOTOMY.—Dr. Greene, of Saco, Me., reports, in the *Boston Journal*, a successful case of tracheotomy, performed on a child four and a half years old, for the relief of membranous croup, with entire relief. This is rather a rare result, and as such deserves to be recorded. Emetics and other remedies were used simultaneously.

Plate to fatty degeneration of the heart.



Barlow's Case.

Communications.

Fatty Degeneration of the Left Ventricle of the Heart, with a Case of Sudden Death.

BY J. B. TRASK, M.D.

The very serious results consequent on fatty degeneration of the muscular tissue of the heart, and the sudden terminations of life which take place from this cause, has of late years engrossed a large share of the attention of the pathologist and histologist.

Prior to 1854, this lesion of the organ was divided into but two distinct forms of degenerescence, and which are by far the most frequent. The first, or more common form, was that in which there are found large accumulations of fat upon the external surface of the heart; and the second, that form of the malady wherein the adipose deposits take place in the cellular tissue connecting the fasciculi of the muscular tissue, but external to the individual muscular fibrils. The second may be a consequence of the first condition, but in either case the pressure arising from those depositions become the source of those mischievous consequences which result from the process of degeneration of this character of the muscular tissue of the organ, as well also as that of the voluntary muscles, which are liable to the same changes under certain known conditions. A third form of this lesion was discovered by Rokitansky, differing from the preceding two in this particular, viz., a condition of fatty degeneration in which the fibrillæ of the muscular tissue was primarily involved, and which, in place of presenting fatty degeneration in the second form mentioned, was found to be situated within or upon the sarcolemma of the fibrils, or in other words, about the substance of the muscle material proper. It is this last and very rare condition, both of the part of the organ affected and the muscular structure involved, which forms the subject of this brief notice.

So far as I am able to learn, there is but one well authenticated case of death arising from the latter condition of the heart on record, and this was the case of death in the person of Professor Fuchs of Gottingen, in 1856, who died in his seat at the theatre, without a movement or other sign of physical disturbance; the death in this case was instantaneous, and unattended by any previous symptoms that would lead to the suspicion of so immediately fatal a result.

We must remember in examining these and similar cases that we have here a condition amply sufficient to cause rapid and unexpected death—a result following a cause, divested of hypothesis and theory, and physically demonstrable, having all the certainty of mathematical precision. The study and demonstration of the effects of fatty metamorphosis on the tissues of the body is one of the brilliant conquests of modern pathological anatomy and histology; and, farther still, it has not ceased here, for it has also shown that the process through which the degeneration is induced is one which is retrograde and destructive in its march, and though it may be gradual, yet it is certain and well defined. There are instances, however, in which the lesion may be comparatively rapid in its progress, as in those cases where it has been shown by the elaborate researches of Virchow, it may follow as the termination of phlegmasia.

Without a correct appreciation of the peculiarities of these different forms of fatty degeneration of the heart our cardiac pathology is most incomplete, for there are more circumstances than we generally suppose where irreparable mischief to character, and perhaps jeopardy to the lives of other persons may ensue from a too hasty conclusion as to the cause of a sudden death; as an instance, through its presence only we are able very often to account for those suddenly fatal terminations of life which at times take place during the presence of other diseases—such as at times occurs in a typhus, where on post-mortem we find no other lesions, nor changes in the fluids of the body, sufficient in reason to account for the sudden decease.

Again, where sudden death occurs to a person in apparent health, it not only becomes perplexing to account for the decease, when it is found on inspecting the cadaver that the valves and vessels of the heart are in a normal condition, and the muscular structure may also present a normal appearance; where the lungs are sound; where neither the liver nor renal organs exhibit to the eye any visible trace of disease; where the stomach is healthy, and that organ develops but the "*hemorrhagic erosion*" which, in the greater number of cases, when it is seen, is but a post-mortem condition, often mistaken for and assigned as a cause of death, and, when it is prominent and vivid, is frequently produced by the use of stimulating materials preceding, or that may have been in the stomach at the time of death. Such a condition of parts constitute no fancy sketch—such was the case with the subject of this paper; and not only the sudden death, but the manner of the death was calculated to arouse suspicion, and the conditions of the organs here described would go far to confirm those suspicions, however unjust.

As may readily be seen, the autopsy in such a case could reveal no adequate reason for the sudden decease, and chemical research could not but give equally negative results, when conducted by hands that were competent; when otherwise, it would be difficult to conceive what might not be *clearly* made out, even when no poison was suspected. A hemorrhagic erosion by such a pretender might easily be tortured into an ulcer of the stomach, but if asked for its symptoms during life, no reply to the interrogations would be forthcoming. If it did exist during life, where were its symptoms? If it did not, the *ulcer* must have been produced near the period of death by an irritant poison. What was it? Answer!

The manner and cause of death in a case such as has been detailed in the preceding paragraphs is more easily, rationally, and positively accounted for than by any such fallacies as above noticed, and removes those suspicions which it is apparent must attach to such questionable conclusions. For on an examination of the heart from such a case, it becomes apparent why death did ensue, and so rapidly, and why the tonic spasm preceded the event; but it does not explain why the death was not without spasm and instantaneous. Here I will gladly dismiss to me an unpleasant part of the subject, and I would gladly have omitted any allusions to the points had not circumstances compelled me to do so.

The causes of fatty degeneration are obscure, and its presence is not detectable during life by any physical symptoms, at least in the intra-muscular forms (if this term be admissible) of this process; when it is present in the heart no physical signs have yet made it known. In the present advanced state of our knowledge relating to the distribution of the nerves among the substance of the muscles, there would seem to be some room for doubt, if this latter form of degenerescence is governed altogether by the accepted rule relating to the first two and most common forms of the disease. For in the third form of degenerescence, we find that in the primary stage the axial centers of the fibrillæ are involved, and the beaded fatty granules are found to lie under the sarcolemma of the fibril, and *apparently beneath* the lines of the transverse striæ, in lines more or less distinct, and at right angles to those markings; they are separated from the cellular tissue groups of fat granules which are more or less developed in the same specimen.

We here arrive at an interesting question as to the causal process which induces this form of fatty degeneration—viz., the direct agency through which it was brought about in the substance of the primary fibrillæ, and of the involuntary muscles in particular. It is here that we are thrown back to the experiments and demonstrations of Reinhardt on cellular fatty degeneration, and which when taken in connection with the late researches of Kuhne on the distribution of the motor nerves, may tend in the future to throw some light on this very obscure subject. How far this intra-muscular degeneration is to be attributed to the distribution of the ultimate terminations of the fibrils of the motor nerves to the fibrillæ of the voluntary and involuntary muscles, and their softening in the first instance, while in contact and lying upon the muscle fibre proper, is a question yet to be determined.

Considering the very delicate nature of the nerve substance enclosed within the neurilemma, and its proneness to break down and take on fatty softening under certain conditions, it is far from impossible to say that we have not here a principal element exercising a direct influence in the production of the primary proximate condition which in these cases we witness. As to the causes acting upon the nerve substance, and inducing this destructive metamorphosis of the nerve tissue, or of the muscle fibril, we shall be obliged to seek it beyond those periods when it is first made evident to physical demonstration.

It it be true, as Kuhne has stated, that the double contours of the motor nerves have an abrupt termination when their neurilemmas dip beneath the sarcolemmas of the muscle fibril, and that the axis cylinder of the nerve lies in direct contact with the striæ of the muscle fibril also, after the passage of the nerve through its sarcolemma, then there is good reason on which to base a belief that in those nerve tissues thus divested of their firmer coverings is to be found (under certain conditions) at least one of the causes of primary intra-muscular softening and fatty degeneration.

In advancing this hypothetical view, I am not forgetful of the strong resistance manifested by nerves to the encroachments of local disease, nor should we forget at the same time that this peculiar resistance is due to the fibrous enveloping membranes of those organs; and farther, we must recollect that when those sheaths cease to extend their protective agency over the parts previously contained within them, that we then have a widely different condition of those delicate tissues than previously obtained. If it be a fact that the neurilemma ceases after its transit through the membrane of the muscle fibril, we are warranted in the belief that at this point the semi-fluid granular mass of the nerve is here poured out for the purposes of nutrition of the muscle. It would be superfluous here to argue the frequently rapid softening of the nerve substance under certain conditions, and here in the sheath of the muscle it becomes subject to the same laws as in other parts of the body; our post-mortem softenings of the brain and of the spinal cord furnish ample evidence of the rapid process, while some chronic affections furnish examples of the gradual process during the continuance of life; among the latter may be mentioned phthisis.

In the latter conditions active regressive and destructive metamorphosis are its results, the parts to which such nerves are distributed suffer; in vital organs, and where the organic system is largely implicated, disturbance of function, which though it may be gradual, finally terminates in organic lesion, and this is the fact whether the disturbance has arisen from general defective nutrition or other causes. Whether we regard fatty degeneration of the tissues as a result arising from an inflammatory process through the protein-exudates thrown out, or from vice in assimilation or nutrition, be it located in the sensory, motor, or organic systems, it makes but little difference, the process is one of degree only; for under either of these origins the normal condition of the parts involved would be separated from direct vital influence, and their development would here cease, but metamorphosis would follow. This law was long since established by Wedl, and is the simplest and most rational in its effects.

Modern observers who have studied the peculiar features of fatty degeneration of the heart have arrived to but one conclusion, very tersely summed up in the following sentence by Lebert, which I translate from his Maladies du Cœur: *It has been found that the results of this accident are promptly fatal.*

Fatty degeneration of the heart may have been persistent for a long period, and unattended with any marked physical symptoms; and this paucity of symptoms arises commonly in consequence of the very gradual process of the fatty deposit; it may end in sudden death without appreciable cause at the moment, as in the case cited, or it may terminate life nearly equally suddenly from the slightest excess of physical exertion on the part of the individual, whereby a trifling augmentation in the force and quantity of the circulating fluid takes place, requiring more rapid and stronger contraction of the left ventricle, which is already in a state of insufficiency to exercise its normal function from the foreign accumulations of adipose matter deposited within and about its muscular tissues. In this case I exclude the consideration of the common form of the malady as it occurs in the right ventricle.

CASE.

A. M. Praslow, a merchant of San Francisco, a man of robust frame, with tendency to obesity, while in the discharge of business in his store, is taken suddenly ill, sinks into a chair and dies almost immediately. The symptoms are peculiar in some particulars, and will be briefly stated. During the morning of the day on which he died, he manifested a great degree of thirst, and drank an excessive quantity of water; he had eaten a moderate meal an hour or so before his decease, and had made a sale of a bill of goods at this time; he was walking to the back part of the store for the purpose of reading a morning paper, which he had in his hand, as was his usual custom; when near his place of sitting, he stopped suddenly raised his hands and arms, throwing his head backward, was rapidly gasping for breath, when an assistant reached him and aided him to his chair. He seemed troubled to respire, and to a question as to his suffering from pain, replied, "*It is here,*" placing his hand on the region of the heart and anterior part of the left lung. He was asked to make an effort to vomit, and replied "*He could not.*" Here tonic spasm set in, the body being violently convulsed in a peculiar manner. The body was rapidly raised and depressed in a vertical direction as he was sitting, the patient still gasping for breath, until near the moment of death the muscles failed to support the erect position, the body became recumbent; the tonic spasm still persistent, conveyed the idea of a death from strychnine, as the form of spasm simulated those from the use of this agent in their tonic character. I failed to learn that either emprosthotonos or opisthotonos (one or the other of which is an essential symptom of poisoning by strychnine) was present, by those who saw him die. His mind was clear until death. The violent convulsions then, which were *constant* when the body was recumbent, were evidently but the same spasms acting upon the body while it maintained the sitting posture. The period that elapsed from the time he was seized till death, as near as could be learned, was from five to eight minutes. The above details are derived from those present at the time he died.

A post-mortem examination was made twenty-four hours after death, at which time I saw the cadaver. The body was deeply discolored; (which took place immediately after death,) rigor mortis still persistent. The following features indicative of tonic spasm at the moment of death were present. The thumbs were partially flexed, but *not* drawn to the *palm* of the hand, they were simply under normal but strong contraction; the wrist and forearm under like conditions; the fingers were forcibly flexed, the index and middle fingers were less palmar than were the ring and little fingers, the ends of the latter only touching the palmar surface, the attitude being that of the first half clenched. Excluding the process of the rigor mortis, these conditions of the upper extremities correspond with the symptoms immediately preceding decease.

Sectio cadaveris. The liver, lungs and stomach were healthy; post-mortem hemorrhagic erosion, only, of the papillary and mucous surface was present in the latter organ when it was removed from the body. The heart was somewhat hypertrophied, but not excessive, and when cut into, its walls presented to the eye but slight evidence of disease in its muscular structure; it was not firm and resistant to pressure, had a slight grayish tinge, with here and there interspersed fine points of a paler hue. Its valves presented no abnormal condition. A small portion of the walls of both ventricles were removed and macerated for six hours in distilled water, at the end of which period (it then being freed from blood, etc.) they were examined, and presented the following features: the muscular tissue is soft and flacid, and breaks down under the fingers; it has a dusky purplish-grey hue. A fragment placed in absorbent paper, and thus dried stains the paper and makes it traslucid; the spot is not removed by washing with cold water nor alcohol, but is removed by ether.

The blood in the vessels was dark and perfectly fluid, emitting a peculiar odor, not unlike the smell of recently oil-stuffed leather, but not having the intensity of degree as the latter; it left on pine wood a tint much resembling that of pyroll.

The microscopic examination was made on a portion from the central part of the wall of the *left ventricle* (the wall of the other ventricle was more degenerated, as should have been expected,) after it had been thoroughly washed. The muscle fibrils were carefully dissected out with needles upon the stage-plate, and presented the following characteristics:

In water, the fibrillæ of the muscles presented fine, brilliant, yellowish, punctate points, unequally disseminated, and in some parts of the fibrils little else could be made out; in others the transverse striæ were easily seen; they break up into either the quadrangular fragmentary masses under slight pressure, as seen in the engraving, or into the granular amorphus material; others again are amorphus and structureless, the diffuse and aggregate transparent granules constituting the only object to be made out (the pressure used here being that only which is obtainable on the live box). Under greater amplification, (300 diameters,) the fibrils in which the transverse striæ could be seen, presented an anomalous appearance; along their axial centers was seen a clear yellowish line of strongly refractive beaded, transparent, brilliant points, at times slightly interrupted with a few striæ in the intervening space, as seen in the middle of the cluster of three marked (*a*). It will be seen here that in this form of degeneration that the transverse striæ have not disappeared, as is generally stated to be the fact in the primary stages of the disease; to this point allusion will be made elsewhere. In the same figure, but to the left of the preceding two, is a fibril in which the transverse striæ are with difficulty made out, owing to the extent to which the destructive process has progressed; the fatty globules occupying almost the entire substance of the fibril; this figure is presented as it appeared without the application of any chemical reagent, and exhibits the fact noted on a preceding page in relation to primary and complete degenerescence in the same specimen.

After satisfying myself of the nature and extent of progress of this destructive process, the specimen was then placed under the action of a very dilute acetic acid, (one part acid to one thousand parts, by weight, water,) the result of its action is shown in the middle figure of the engraving in the three right hand fibres (*b*.); very soon the transverse striæ were rendered much more distinct than before its application, the lines before being obscured by the fatty granules about them; in these three fibrils there was an appearance of their axial centers being involved at first, as is the case in the figure marked (*a*). To me it appears evident that here the adipose deposit lies in the cellular tissue connecting the fibrils, for on the addition of the acid, they appeared in the lines of junction of those fibrils only; the remaining fibrils of the group (*b*.) are far advanced in the regressive and destructive metamorphosis.

In the group of fibres marked (*c*.) there was but an amorphus, structureless mass of globules, which neither strong nor dilute acid seemed to affect by any change, farther than to aggregate and somewhat enlarge the fatty drops; on the outer and left hand border there was a more regular line of the granules than elsewhere, indicating that they retained this position by virtue of an envelope external to themselves, but which could not be made obvious to the eye.

In the parts treated with acetid acid, the elongated nuclei were seen, but are not indicated in the sketch, through an error in the original drawing. By reference to this plate, (which is a correct delineation of the parts by the camera-lucida,) it will be seen that at least *three-fifths* of this part of the left ventricle was in a condition entirely incompetent to perform the necessary functions of the organ, and that no trifling impairment also existed in the remainder; and with these physical features of the case before us, there should be no surprise that a prompt death should have taken place, far more prompt than if *the entire mucus surface of the stomach had been a mass of superficial ulcers.*

In regard to this case, there are few points to which I would beg leave to direct special attention, as the features are a little anomalous. The first point is the seemingly distinctive appearance in the disposition of the fatty deposit in the incipient stage of the process, as it is given by Wedl and Rokitansky, Virchow, Bennett, and Hasse. I will quote each, the more readily to enable the reader to observe wherein lies the distinctions alluded to:

"Fatty degeneration is a form of retrograde development in the transversely striped muscles, in which their peculiar character, viz., *the transverse striation is lost.*"—*Wedl.*

"In the first, adipose tissue or fat cysts are formed *between* the ultimate muscular fibres: in the voluntary muscles the transverse striæ disappear."—*Rokatansky, p.* 313.

"There is another form of degeneration which has not before been observed. and to which the muscular structure of the heart is liable, particularly when hypertrophied: it is characterized by the developmant of minute particles of *free fat between* the primitive muscular fibrils. At the same time the striated sheath of the fibre diappears."—*Ib., p.* 315.

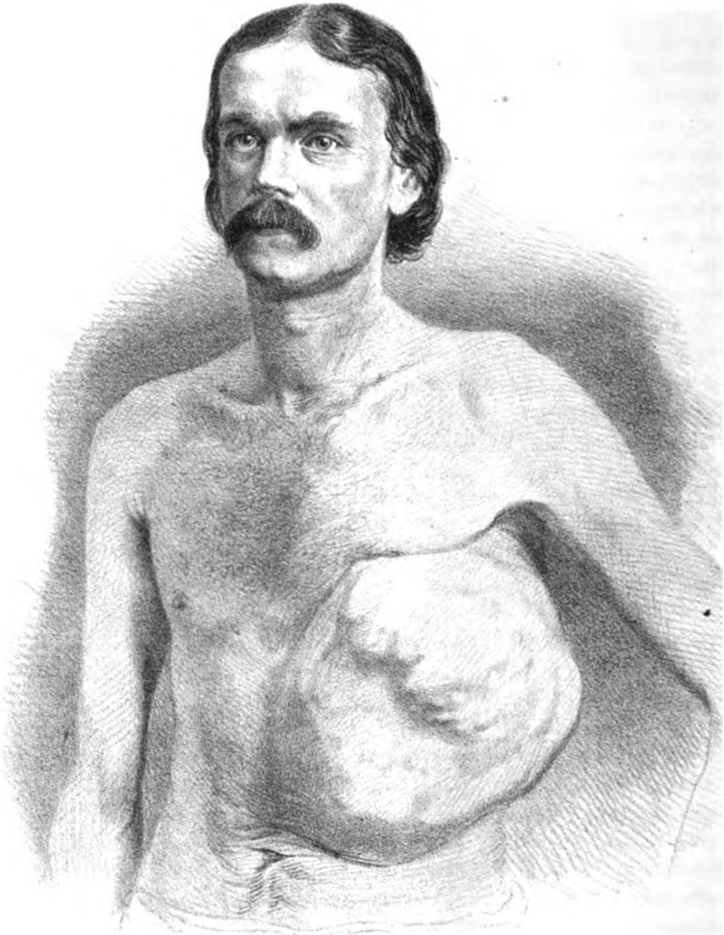
"In voluntary muscles we observe that the degeneration commences with *diminished distinctness* of the traverse striæ, especially at the circumference of the fasciculus."—*Bennett's Principles and Practice of Medicine, p.* 226.

Virchow (*die cellular-pathologie*) has figured, on page 295 of that work, the appearance of what he denominates the intersticial form, wherein the oil-drops are disposed in moniliform lines between the fasciculi of the fibrils; they occupy in this case the longitudinal axis of the fasciculus only. These are the only authorities within my reach at present, but they will be admitted as sufficient for the point alluded to.

From the above quotations relative to the manner in which the fatty deposit begins, and on inspection of our figures, together with their description on a preceding page, it will be observed that we not only have in the case before us all the different degrees of the degenerative process, but also the peculiar and striking feature of a deposit of fat within the sarcolemma, and lying apparently either upon or within the muscle substance of the fibril proper. (*a.*) The moniliform deposits of Virchow are more closely related to the fibrils on the left and lower part of (*b.*) on the same plate.

From the remarks that have been made touching the probable degeneration of the nerve terminations, which latter have recently been set forth by Kuhne, viz., the bud-like bodies which he has described, (and a notice of which may be found in another part of this journal,) a question possibly might be raised as to whether the fine and well marked granules *within* the fibril sheath at (*a.*) may not have been mistaken for Kuhne's *bourgeons.* Therefore, to set this point at rest, it will be necessary simply to state that the fine punctate dots did not dissolve in concentrated acetid acid, nor did they comport themselves in any manner as nerve substance. They suffered no change under this reagent, except such as previously noticed. I do not propose in this matter to create any new process for fatty degeneration, and would simply suggest that the features here detailed in relation to the matter

PLATE TO D^R. TOLANDS PAPER.



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Case of Enchondroma.

are probably but a heretofore unobserved condition of the primary stages of fatty metamorphosis, and but a variety of those conditions before known.

There is also one other fact that I will here take the liberty of mentioning: these examinations and drawings were made long before any works whatever were consulted relative to the points described and discussed.

If there has been no error in the microscopical examination of this pathological condition in this case, then it cannot longer be accepted as a rule that disappearance of the striæ is an infallible condition of the primary stages in this malady; but, as error in microscopic research is most easily made, we will submit the facts as detailed to those who are probably more competent to judge of their correctness.

There is a peculiarity in this case arising from another cause, which is this: fatty degeneration of the heart is almost always confined to the right side of the heart, and at times involves nearly the entire ventricle. In this case we have the very rare instance of the left ventricle being involved also, and to a large degree. The peculiar characteristics in the case of Praslow make it very anomalous, and interesting to a high degree when taken together, for it is seldom that we meet with so strange a series of symptoms and pathological conditions. *

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* Since the above was in type, we learn from his friends that the father of the subject of this notice died equally sudden. He stepped from a sleigh on the road, for some trivial purpose, and died immediately.

Professor Fuchs' father and sister died in the same manner, but no autopsy was made in either of their cases.

ERRATA.—Read Praslow for Prealow on the plate.

Enchondroma of the Ribs.

BY H. H. TOLAND, M. D.

THESE tumours not only resemble cartilage, but also present all the physiological peculiarities of that tissue, and of its different varieties, and may be developed either in the soft parts or in bone, more frequently however in the latter. Of the former, the testicles, parotid and mammary glands are most frequently affected; and of the latter the sternum, ribs and phalanges of the fingers and toes, although the other bones are not entirely exempt. In bone, enchondroma presents two varieties; in one the cartilaginous formation is covered by an osseous sheath; in the other no such investment exists, its place being occupied by the morbid growth.

The structure and character of these tumours was discovered by Johannes Muller by the aid of the microscope, and from its similitude to the chondroid elements it received the name of enchondroma.

They vary in magnitude, more than almost any other variety of tumour, and frequently become exceeding voluminous, as may be seen by referring to the accompanying lithograph. The external appearance is by no means uniform, being sometimes spherical and smooth, but more commonly mammilated, particularly when they acquire great magnitude.

They are considered benign, except when modified by a specific morbid action, and become serious only by their size and location. Although they occur more frequently in young subjects, the aged are not exempt from their development.

CASE.

H. H. Love, aged 26 years, came from the northern part of the State to San Francisco in March, 1861, and applied to me for advice. He was suffering greatly from a tumour, located upon the left side of the thorax, that had existed about eighteen years; and during the first sixteen years of that period it was very small, occasionally, according to his own statement, it being not larger than a walnut; it was neither painful nor inconvenient, and appeared to be confined to a single rib. During 1859, without any apparent cause, it began to increase rapidly, although it was not until 1860 that its size became sufficiently great to give him much inconvenience or prevent him from attending to his usual business. For two or three months before visiting San Francisco, its development became more rapid, and it was so excessively painful and inconvenient that he determined to have it removed, without regard to the consequences—as life was not desirable under such circumstances.

The tumour extended from the umbilicus to the axilla above, and to the spine posteriorly, and measured in its greatest diameter 26, and transversely 18 inches; its surface was mammilated, and generally firm and unyielding, except about four inches above the umbilicus, and near the external margin of the rectus abdominis, where fluctuation was distinct.

It was so intimately connected with the ribs that it was immovable, but its character and extent could not be positively determined; yielding to his desire for relief, I consented to afford him the only chance that remained for life, being fully aware that if all the ribs were so much diseased as to require exsection, even if the operation did not speedily prove fatal, it might be ultimately followed by that result.

March 6th, 1861, assisted by Drs. Trask, Baldwin and Douglass, and Messrs. Ropell and Frisby, after the administration of chloroform, and every necessary precaution taken to prevent an extravagant loss of blood, an incision was made the entire length of the tumour, near the superior margin, and the integument detached from its surface, by which its character was determined. After the arteries were secured, the mass, although intermixed with bony matter, could be easily cut and torn, was found to occupy the position of all the ribs from the fourth downwards, except the last, and was removed as completely as possible, to avoid wounding the pleura and diaphragm, which were in contact with the internal surface of the tumour. This, however, was not so difficult as the exsection of the abdominal portion, which extended under the muscles, and lay between them and the peritoneum. The cavity in the tumour at the point above the umbilicus, where fluctuation was distinct, contained about a pint of extravasated blood, which was not coagulated, and had probably been accumulating for several weeks, the fluctuation having been detected by the patient for some time previously. After as much of the tumour was removed as was thought advisable, the surface of the wound was covered with wet lint, and the edges approximated by three or four points of the silver siuture, and a bandage applied. Notwithstanding he lost as little blood as was possible under the circumstances, in consequence of the efficiency of my assistants, he was when the operation was completed so much exhausted that several hours elapsed before reaction could be produced, by the free use of stimulants and the application of artificial heat. That portion of the tumour posteriorly that was not removed, in consequence of the exhausted condition of the patient, as well as a few irregular portions that adhered superiorly, both to the pleura and diaphragm, were detached and removed in three or four days after, with the exception of the posterior extremity of the seventh rib, which could have been easily detached with bone forceps, if the condition of the patient had justified the operation.

The tumour, with what was subsequently detached, weighed 18 pounds; and notwithstanding the nervous exhaustion necessarily resulting from the extensive exposure of vital organs, as well as the loss of blood, inseparable from such an extensive incision and dissection, every symptom appeared as favorable as possible until the eighth day; his appetite and digestion both being good, his sleep tranquil and pulse natural, and but a little accelerated to this time, when I detected a change in the color of the exposed pleura, accompanied with tympanitis and occasionally hiccough. The next morning the membrane was gangrenous, and when detached the collapsed lung, as well as the pericardium and the upper surface of the diaphragm, were exposed. So soon as the particles of the tumour that were allowed to remain were removed, the warm water dressing was applied, and secured by a tight bandage, to prevent the unpleasant effect produced upon the patient by the passage of air through the wound into the chest during respiration.

On the twelfth day, although his pulse continued good and his sleep was undisturbed, he appeared more irritable, and suffered considerably both from flatulency and hiccough; and on the thirteenth, in the evening, I discovered for the first time some confusion of the intellect, and an increase of the unfavorable symptoms detailed, all of which became more and more violent, until he died at four o'clock P. M. on the fourteenth day, with all the symptoms of peritonitis, which most probably resulted from the violence necessarily offered to that membrane by separating it from the inferior portion of the tumour.

If the peritoneum had not been implicated, notwithstanding the exposure of the thoracic organs and the exsection of so many ribs, I believe the patient would have recovered, as none of the vital organs were seriously diseased, as may be seen by referring to the Editor's Table in the March number of this journal, which contains the result of the post-mortem examination made by Drs. Trask and Staub, of this city.

On Phthisis.

BY JAMES BLAKE, M.D., F.R.C.S.

In my former articles on this subject I have endeavored to show that the most successful plan of treating phthisis is causing our patients to live in the open air, at least during the summer months; and as the season has now arrived in which even those in the more advanced stages of the disease can avail themselves of this remedy, I propose to offer a few remarks on the manner in which the treatment should be carried out. To those physicians who have ever led a camp life, these remarks will be of but little use; they will know how to instruct their patients in making the necessary arrangements; but there are many members of the profession who have never camped out, and would perhaps consider it a great hardship to be obliged to sleep in the open air. Unfortunately, our advancement in civilization seems to be accompanied by an antipathy to fresh air, at least at night, so that every precaution is now used to render our houses as air-tight as possible. This I consider to be one of the principal causes why, notwithstanding the diminution in the general rate of mortality, phthisis still carries off as many victims as formerly; in fact, Sir James Clark, in an article on *Tubercular Phthisis, in the Cyclopædia of Practical Medicine*, states: "That whether tuberculous diseases have diminished or not during the last half century among the laboring classes of our population, we are of opinion that they have increased in the upper and middle classes of society." The causes of this increase may be and probably are of a complex character, but I am of opinion that the greater attention given to making houses air-tight and *comfortable*, has in a great measure to answer for it. My own experience is, that we had less phthisis here in the days of frame houses and canvas linings, when every breath of Heaven would find its way in-doors with very little trouble, than we have since bricks and plaster, and grooved and tongued flooring have offered an effectual barrier to the entrance of the external air. In an article lately published in the *British and Foreign Med. Chir. Rev.* on Phthisis in the Hebrides, by Dr. Morgan, in accounting for the extreme rareness of phthisis in these islands, he thus describes the dwellings of the inhabitants: The crafter's hut is in general about forty feet by fifteen. It is built entirely of rough unhewn stones, no mortar of any kind being used. The external wall rises to the height of five or six feet, the corners being rounded off to offer less resistance to the wind. There is usually but one door for man and beast; often no window of any kind. The roof, supported on a few unhewn rafters, is thatched, heather ferns or rushes supplying the material. In one corner is a hole, about a foot in diameter, for the escape of the smoke. There is no sort of chimney." Contrast this with a modern comfortable brick house, and compare the rate of mortality in the two classes of inhabitants, keeping in mind the corroborating instances to which I have already alluded, and I think a strong case is made out for the beneficial effects of a free circulation of air, particularly during sleep. The cotter's hut, so far as a free circulation of air is concerned, can present but little difference to living in the open air. It just suffices to afford him protection from the rain of his drizzly moist climate, whilst the air has perfectly free ingress and egress through its thousand crevasses, and the chimneyless hole in the roof. But to return from this digression, from the beginning or middle of May, on through the summer months, our patients may live in the open air. A shower or two may fall during May, but June, July, August and the early part of September may generally be counted on as rainless months, nor will there be probably more than four or five rainy days before the middle of November, at which period, as a general rule, winter quarters should be selected. It is desirable to avoid the lower valleys before this time, on account of malaria, which I find is very apt to affect phthisical patients on coming down from the mountains.

As to the locality to which our patients should be directed, I have already stated that I consider the range on the west side of the Sacramento and San Joaquin valley as the most favorable. The temperature, particularly in the early summer months, is more equable than in the Sierra in the hotter months, the sea breezes are less mixed with the heated air of the valleys, and yet are sufficiently tempered to render living in the open air always agreeable. By going up the valleys some distance, larger game can still be found in abundance, an advantage which cannot be commanded in the Sierra. In the later autumn months, the valleys opening on the bay, or in the Contra Costa range, offer good localities for camping, until the winter rains fairly set in.

As there is no lack of phthisical patients, the better plan is for three or four to join together for the summer campaign; by so doing they secure company and lessen expenses. They should take a light strong wagon, drawn by two mules, to carry the baggage and provisions, and each person should have his own riding horse or mule. The wagon can be driven to some part in the range to where the first camp is to be established, which early in the season should not be at a greater elevation than eight hundred or a thousand feet. Later in the season, when the weather becomes hotter, the wagon can be left, and the baggage and provisions packed on mules to the more inaccessible parts of the mountain, at an elevation of four to five thousand feet. The services of a man who is a good hunter should be secured for supplying game, and also to look after the animals, and to do the most laborious camp-work. During the summer such men can easily be procured, as the regular hunting season being over, many who during the winter supply the markets with game, would gladly accept such a situation at moderate wages. The load for a wagon should consist of a tent 10 by 14 feet, for three persons, and a fly to put over it. Three pairs of good blankets and an india-rubber one for each, but it is well to take a good thick flannel shirt, and a thick pair of worsted socks, to be used as bedding, for should the weather be very cold, they will afford as much warmth as an extra pair of blankets, and weigh much less. The camp equipage should consist of two pack saddles, baking-pan, camp-kettle, gridiron, frying-pan, two or three small saucepans, tin cups and plates, knives, forks and spoons, coffee-pot and mill, axe, hatchet, rope for packing and staking out the animals, etc. The provisions should be flour, bacon, sugar, rice, coffee, tea, dried apples or peaches, potatoes, salt and pepper. As a general rule there is no necessity to lay in a stock to last the whole of the summer, as provisions can be generally procured at some place within a day or two's packing from the camp, even in the more inaccessible parts of the mountains.

The principal dependance for food, however, must be the rifle of the hunter, but every one should carry a light shot-gun for killing small game, and also as an incentive to exercise, and to wile away some of the hours of a camp life. As most of the mountain streams contain trout, hooks and lines should be provided.

The first camp should be pitched in one of the lower valleys, many of which are to be found in the spurs of the ridges. They are generally well timbered with scattering oak, and where they open out to the breadth of from a quarter to half a mile, as is frequently the case, they offer some of the most beautiful landscapes that it is possible to imagine, the mere contemplation of which is a happiness, and tends to produce that calm and tranquil state of mind so peculiarly favorable to the recuperation of the physical strength. Some such locality can generally be found within easy distance of a farm, where butter, milk and eggs can be procured, a decided advantage during the earlier days of camping out. It is always better to camp on some slight elevation, as the air in the lowest part of the valley is much colder at night, a rise of twenty or thirty feet making a difference of many degrees in the temperature on a still night. It is well to have a screen of bushes towards the upper part of the valley, so as to break the stream of cold air that usually runs down the valleys at night. As rain might be expected, the tent should be pitched; but should the weather be at all mild, I would advise from the start the nights should be passed in the open air. Our patients should already have been accustomed to the cool night air, from sleeping with their windows open, and two or three days riding has insured them an immunity from cold that they did not enjoy before. Old Harrison, who wrote in the sixteenth century, when houses were begining to be made *comfortable*, thus complains of the evils of the new system: "Now have we many chimneys, and yet our underlings complain of rheums, catarrhs and poses. Then had we none but redosses, (open fires with a hole in the roof,) and our head did never ake." The more the amount of living in the open air, the less the chances of *rheum, catarrhs and poses.*

The diet must consist principally of bread, meat, coffee or tea and water. It is of importance that some one in the camp should know how to make light wholesome bread. Game will constitute the principal portion of the animal food, and this may be eaten either broiled or boiled. When the digestive organs are good, fat bacon may be taken with advantage; and, as a general rule, it will require but few days of camp life to enable it to be well relished and digested. Hygienic rules must be strictly adhered to, as our patients are out not simply for enjoyment but for health, and there is no fear of their laying in too large a supply. The great trouble is, that as soon as they begin to feel much better, they imagine they are well, and can do as they like. This is a great mistake. They should remember that they are in constant training to oppose a most pertinacious enemy, and should therefore never relax in carrying out every rule that can at all tend to improve their strength. The principal meals should be breakfast and dinner, the supper being light. It is a very agreeable occupation for those who are well to sit round the camp fire broiling ribs and steaks until bedtime, but phthisical patients must take no such liberties with themselves. At the proper hours, however, they may eat all they want, nor should they measure their allowance of food by what they have been accustomed to eat when living in houses. If they can eat with an appetite a pound or two of venison at a meal, it will do no harm. Although generally a small eater, I have taken as much as four or five pounds of buffalo meat at a sitting, and have not felt more inconvenience from it than I would after a plate of soup and a mutton chop; and I have seen Indians eat as much as ten pounds of meat at a meal, using at the same time half a gallon of wild honey as a sauce—such is the invigorating effect of living in the open air on the digestive organs. Regular exercise must be taken to the full amount that the strength will admit: a walk of from four to five miles should be taken twice a day; riding is also a useful exercise, but should never be allowed to supersede walking. Where the water is not too cold, a plunge bath may be taken daily, but in most of our mountain streams this cannot be borne, and a sponge or wet towel bath must be substituted. All sleeping should be done in the open air, except in wet weather. Those who like something softer than the ground on which to rest, may make a good mattrass by laying down four logs at the proper distance, and filling the enclosed space with the leaves of the fir or pine. There is no reason why our female patients laboring under phthisis should not avail themselves of the advantages of a summer open air life. There are many who have the means to enable them to command the necessary attendance, and to whom camping out for a season or two affords the only chance of life. In fine weather they might use a tent without a roof as a sleeping apartment, but it would be desirable that they should have a covered wagon, in which they might sleep until they gradually become accustomed to out-door life. I have known of many cases in which women have derived the greatest benefit from the journey to this country across the continent, and compared to this camp life in our mountains is a continual pic nic. A few quires of blotting paper would enable them to make a herbanium, and afford an incentive to exercise.

Before concluding this rather desultory paper, I would allude to an objection that will probably present itself to our patients on advising them to lead a camp life, and this is, how are they to get on away from all medical aid, more particularly if they should get worse! Now, I think we may conscientiously tell those of our patients who have any chance of recovery, that when living out in our mountain air they are doing far more to re-establish their health than anything we can do for them. Living out of doors is the best remedy they can employ for their bronchitis; sleeping in the open air is the best preventative of night sweats; combined with exercise it if far more efficacious than morphia in procuring sleep, and infinitely surpasses bitter infusions in improving digression. Not that we should advise them to "throw physic to the dogs," as in many cases, particularly where the disease has made much progress, medicine can still be of great service. A supply of cod liver oil should be taken, to be continued at least until the stomach can digest a full supply of nutritious food. Muriated tincture of iron may, I think, be employed at intervals during the whole treatment; croton oil liniment should be taken, to produce counter irritation in the attacks of limited pleuro-pneumonia, which will sometimes come on. General directions can be given as to when these remedies are to be used. The only serious symptom that is likely to present itself whilst our patients are camping out is hemorrhage. This will sometimes come on, even after marked improvement has taken place in the general symptoms. We may, however, inform them that bleeding from the lungs might occur, but that this symptom is not so alarming as it is supposed to be, and that but little can be done for it in the way of treatment. Advise them to keep their minds and bodies cool and quiet, to avoid hot food, and they will probably get on about as well as if we were within call.

Sacramento.

Reviews.

A TREATISE ON HUMAN PHYSIOLOGY—Designed for the use of Students and Practitioners of Medicine. By John C. Dalton, Jr., M. D., Professor of Physiology and Miscroscopic Anatomy in the College of Physicians and Surgeons, New York, etc., etc. Second edition, revised and enlarged, with 271 illustrations. Philadelphia: Blanchard & Lea. 1861.

THE name of John C. Dalton, Jr., of New York, is a sufficient endorsement of any work on Physiology. Mr. Dalton is an *experimental* Physiologist, and in this particular he differs materially from the theorist and compiler. e is not a book-maker, but a *lecturer*, and to be the latter it becomes necessary that he has a *practical* knowledge of the parts, the functions of which he undertakes to demonstrate. Mr. Dalton is an American Physiologist; he is of that class of experimentalists to which Claude Bernard, Browne Sequard, Lenhossek, Kuhne and Jacubowitsch belong, with whom he is running upon the same line of parallel, and upon whom he is fast closing on the track. We take pleasure in thus being able to speak of an American author and lecturer, for it has seldom fallen to our lot to perform so agreeable a task. To our medical readers we would say, purchase this plain, readable, practical American work. The work is 8vo, p. 800, and the illustrations are very fine.

For sale by A. Roman & Co., 507 Montgomery street.

A PRACTICAL TREATISE ON THE ÆTIOLOGY, PATHOLOGY AND TREATMENT OF THE CONGENITAL MALFORMATIONS OF THE RECTUM AND ANUS. By William Bodenhamer, M. D. New York: S. S. & W. Wood. 1860.

A handsome octavo of 400 pages, with 17 lithographic plates, well executed. These are but a small portion of the merits of this work. It is illustrated with 287 cases, derived from the annals of literature of every nation. It contains the medical and surgical treatment of the trouble from the earliest times. On the subject of which it treats, it is decidedly the most complete work ever issued from the press.

For sale by Bancroft & Co., San Francisco.

A TREATISE ON FEVER: or Selections from a Course of Lectures on Fever. By Robert D. Lyons, K. C. C., etc., etc. Philadelphia: Blanchard & Lea. 1861.

THE work of Mr. Lyons is the result of long investigation, both in field practice and the hospital. The different parts of the work are illustrated with cases from practice, and thus serves as a practical guide to the points of subject treated. In our opinion this is the style in which books purporting to be of a practical nature should be written, and in this particular Dr. Lyons has met our views exactly. The work is an octavo, containing 362 pages, and has been re-published from the English edition.

For sale by A. Roman & Co., 507 Montgomery street.

ON DISEASES PECULIAR TO WOMEN, INCLUDING DISPLACEMENTS OF THE UTERUS.—Nervous Irritation and its Consequences; Irritable Uterus; Local Symptoms of Irritable Uterus—Complications; General Symptoms of Irritable Uterus—Reflex Influences of Cerebral and Spinal Irritation; Progress and Results of Irritable Uterus; Causes and Pathology of Irritable Diseases; Treatment of Irritable Uterus; Treatment of the Complications of Irritable Uterus; Secondary and Sympathetic Affections; Natural Position and Supports of the Uterus; Varieties of Displacements of the Uterus, and their Causes; Symptoms of Displacements of the Uterus; Treatment of Displacements of the Uterus—Internal Supporters—Lever Pessaries; Treatment of the Varieties of Displacements; Treatment of Complications or Displacements of the Uterus; Treatment of Enlargements and Displacements of the Ovaries, etc.; Sedation and its Consequences; Sedation of the Uterus—Amenorrhœa; Diagnosis and Treatment of Sedation of the Uterus. By Hugh L. Hodge, M. D., Professor of Obstretrics and Diseases of Women and Children in the University of Pennsylvania. Philadelphia: Blanchard & Lea. 1860.

THIS is a new work, just issued from the press in Philadelphia. It is a handsome octavo of 470 pages, printed on fine paper, and is remarkably free from typographical errors. To give our readers some idea of the work, we will state that the chapters on "Irritable Uterus" alone comprises 160 pages of the work; it may, therefore, be considered as nearly exhaustive of this part of the subject.

As an example of Professor Hodge's style of treating his subject, we give the following extracts on its pathology and diagnosis:

"PATHOLOGY.—The nature of this form of morbid excitement, as here advocated, has already been developed.

"An irritable uterus is that state of the nerves of the organ in which they are preternaturally susceptible to impressions. This is all. There may be, and often is, no perceptible disturbance of the organic life; often, however, when a severe or continued irritant disturbs this irritability, the irritation will be followed by congestion or engorgement. This is not inflammatory congestion, but that modification of congestion resulting from nervous excitements, as in menstruation, erections, etc. This congestion may be the cause of leucorrhœa, menorrhagia, and hæmorrhagia. Sometimes, when long persistent, and especially when no secretions or effusions ensue for its relief, congestion is followed by increased growth or development of the organ, that is, by hypertrophy, but never by inflammation, by induration, ulceration, or other results of inflammatory action. Hence, there is no permanent alteration of structure; even after the lapse of many years, the recovery is perfect, and often sudden. Of course inflammation is often coexistent with an irritable uterus; but this arises from other and extraneous sources. On the other hand, an irritable tissue often ensues from inflammation, which is thus sometimes the effect, but never the cause.

"This simple distinct view of an irritable organ does not seem to have been received by the profession; even Gooch, notwithstanding his admirable description of the disease, treated it as an inflammatory complaint. His successors have followed him practically, and have expressed their theoretical views by numerous modified terms. Thus we read of a moderate degree of inflammation; of sub-inflammation; of a continued dysmenorrhœa; of rheumatism or gout of the uterus; of inflammation slowly, after the lapse of years, tending to disorganization; of a peculiar irritation, not tending to recovery; of congestion of the uterus; of engorgement; and lately we hear constantly the positive, unmodified declaration, that it is nothing more than the inflammation of the mucous membrane of the os, cervix, and sometimes of the body of the uterus, followed by its usual consequences. The practice, most unfortunately, of authors and theorists is founded on these different pathological views.

"The numerous and various opinions of pathologists on this subject in Europe and America, as evinced by books, and by the excited debates in medical societies, cis- and trans-atlantic, are anything but creditable to medical science. All must mourn over a discrepancy of opinion, which bears so directly on the treatment of such painful and distressing maladies.

"DIAGNOSIS.—The diagnosis, in one point of view, is exceedingly easy. We must simply ascertain, in order to pronounce it irritable, whether a part be morbidly sensitive; whether its sensations be more readily disturbed than natural. But, the practical difficulty is to determine whether this excitable state is merely the result of inflammation, or whether it arises from some other irritant. In other words, to distinguish between a state of nervous and of organic irritation; between an irritable and an inflamed organ.

"In pure uncomplicated cases of irritable uterus, the absence of all the symptoms and the consequences of inflammation, would seem to be sufficient. But, it has been objected, that all the symptoms of inflammation are not absent; that the pain, the soreness, the burning, the disturbance of function, which are present, are all evidences of phlogosis. This difficulty has already been met, when the great pathological fact was presented that pain has no necessary connection with inflammation, that it is an accident or an accessory to this state of morbid excitement. We know that some of the most destructive inflammations exist without pain; and also that the most intense agony which animal nature can endure, is often experienced without inflammation. If, therefore, the case be a doubtful one, yet, after the lapse of weeks, or months, or years, none of the usual consequences of inflammation be observable, the organ may safely be regarded as irritable. This diagnosis will be confirmed, if the general health of the patient remains good, with no decided or continued emaciation, and no fever, etc.

"The difficulty is greater when local inflammation exists with an irritable uterus. This point has also been noticed. If the symptoms of nervous irritation be decidedly predominant, we may regard it as a case of irritable uterus, complicated with inflammation, and demanding not only treatment for the inflammation, but afterwards a subsequent and diverse treatment, for nervous irritation. Even in bad cases of inflammation, when enlargement and induration of the cervix, a red, humid, and granular condition of its mucous membrane and purulent discharges are present; even in such cases, the neuralgic pains will very frequently be found dependent mainly on pressure and other causes, rather than on the inflammatory process. It is inflammation complicated with an irritable uterus. This distinction will be found of great practical importance.

"Again, care must be taken not to suppose an organ to be inflamed, simply because it is painful, and at the same time enlarged and indurated. Often, in such cases, there is no inflammation present; the induration is the result of a bygone inflammation; it is a sequence, not a symptom. The pain and spinal irritation still remaining, are evidences of an irritable organ.

"The same remark and mode of reasoning are applicable to all those cases of irritable uterus, conjoined with simple hypertrophy, with a hypertrophic enlargement depending on pregnancy, polypus tumors, or heterologue developments in the substance, or the surface of the uterus. Too often have all such cases been confounded with or treated as inflammation.

"Of course, also, care should be taken, that when symptoms of pelvic irritation be present, its true locality be ascertained as far as practicable. Frequently, on account of the predominance of the rectal irritation, have all the symptoms of irritable uterus been referred to inflammation, stricture, or hæmorrhoidal tumors of the rectum; to fissure of the anus, or fistula in ano. So also the cystic irritation, so common, has often been regarded as a disease of the blood, kidneys, or urinary passages; yet the original complaint was, and continued to remain in the uterus.

"Perhaps, under this head of diagnosis, the caution should be reiterated not to consider any of the secondary or sympathetic symptoms of irritable uterus as primary or original, and, especially, not to confound nervous irritation of the brain, lungs, liver, etc., with inflammatory or organic diseases of these organs."

The work contains 20 plates, intercalated in the text, and they are done in the first style of the art; they faithfully and accurately represent uterine displacements more clearly than any series of a similar character which we have for a long time seen.

For sale by A. Roman & Co., 507 Montgomery street.

A Book about Doctors, was received too late for further notice. It is the quaint affair so much spoken of in the journals for some months past. Roman & Co. have it for sale.

Editor's Table.

NOTICE.—DR. WOOSTER will resume the management of this journal until further notice.

THE operation on the spina-bifidi noticed in previous numbers of this journal has proved a complete success. The child is alive and improving gradually, and the lesion obliterated.

NEW RELATIONS OF THE NERVOUS SYSTEM.—After having called the attention of the Academy to the mode of division, as generally received, of the primitive fibres of the motor nerves with the muscles, M. Kuhne adds: That we now observe in following these branches, they re-unite in great numbers on the very smallest portions of the muscular fibrils themselves.

First. The enveloping membrane of the nerve fibril is in constant union with the sarcolemma of the muscle fibril. *Second.* The double contour of the nerve produced by the medullary envelope here ceases abruptly. *Third.* The axis cylinder passes beneath the sarcolemma, and is found now in contact with the contractile substance of the striæ. *Fourth.* The axis cylinder then becomes enlarged, and in some parts it is garnished with small bodies which are more or less granulated, which bodies are the buds (*bourgeons*) of the peripheric nerves. *Fifth.* When the intra-muscular axis cylinder is scant or thin, they are found to be terminated by these *bourgeons.*

These little bodies which belong to the peripheric nerves are fixed to their cylinder axis, much granulated and extremely minute.

F. TIEDEMAN, of Munich, one of the most illustrious anatomists of the day, died at that city on the 22d January.

VARICOSE VEINS.—In the correspondence of Dr. Smith to the *American Medical Times*, it is stated that Mr. Syme advanced the idea that no complete cure for this disease was known—no operative measure yet devised destroys the varix. The use of pins beneath the vein with the twisted ligature obliterates the vessel at those points only to which they are applied. This was shown on a cadaver upon whom repeated operations had been practiced for this accident; the veins were found obliterated on the *site* of each pin only; the anastomosing vessels had dilated the veins both above and below the points of interruption. Mr. Syme observed that the black wash hyd. chlor. mit. dram 1, to aqua calcis ounces 16, speedily heals the ulcers arising from the dilated vessels.

CEREBRO SPINAL MENINGITIS.—At the St. Vincent's Hospital, a case of this disease, brought on by dissipation, and having all the symptoms of low typhoid fever, was treated by Dr. O'Rourke. The case had remained in the hospital for a month before any improvement was manifest, and all available remedies had been exhausted. Dr. O'Rourke ordered the following: Tinc. fer. (murios ?), tinc. cantharis, oa, and the continuance of the nutritious regimen. Soon a decided change for the better was observed, and two months from this time he left the hospital well.

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TO PHYSICIANS AND SURGEONS.

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NOTICE.

We would call attention to the fact that we have received the Sole Agency for FOUGERA'S REMEDIES; we are, therefore, ready to furnish the foreign and English trade, at short notice, with *all* their preparations. We would also remind the trade that in giving their orders for the above that they will receive them at the exporter's prices.

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THE

Pacific Medical and Surgical Journal.

Selections.

Parisian Medical Intelligence.

(From the Special Correspondent of the London Lancet.)

During the last twelve months, and up to within a recent period, the Paris hospitals have enjoyed a perfect immunity from typhoid fevers. Since the beginning of the month, however, a notable change has occurred in the sanitary condition of this capital; and influenza, which had long monopolized the bills of health, has now given place to a slight but unequivocal epidemic of continued fever. The malady is for the most part of a mild and benignant type, and in some cases seems to have engrafted itself upon an already existing attack of "grippe." In the surgical wards of the general hospitals, and more especially in those in the neighborhood of the Seine, cases of traumatic erysipelas are numerous, and, as is usual on such occasions, all operations not absolutely indispensable delayed until the prevalence of this dangerous complication shall have diminished. In the service of M. Bouillaud, at the Charite, where leeches are very abundantly employed, inflammation of an erysipelatous character has been the almost invariable result of such local depletion. Whether the prevalence of easterly winds has anything to do with the matter I know not; the inflammatory influence has at all events been very general even in private practice, and in the hospitals I particularly alluded to universal.

At the Academy of Medicine, M. Devergie, a very competent medico-legal authority, took up a thread of the discussion on the post-mortem Cæsarian operation. He spoke for an hour on this subject, arguing, in concert with M. Depaul, that the question lay perfectly within the limits of the Academical jurisdiction, and urging strongly the reconsideration of a topic so prematurely dismissed by his colleagues. M. Devergie maintained that the ambiguity of the law regarding the performance of hysterotomy subsequent to the death of the mother, arose entirely from the fact of its misinterpretation and misapplication. The code really applied to the question of autopsy, and not to that of a surgical operation undertaken for the purpose of saving life. The phrase in article 77 of the Code Civile couples the prohibition of post-mortem examinations within twenty-four hours after death with that forbidding the taking of casts from corpses, embalming, &c.; and the speaker argued that the legislature had not foreseen the possible contingency of the Cæsarean section being judged advisable, and therefore could not have intended an objection thereto; adding that such omissions were not unusual, for although the production of abortion was qualified as a crime, yet no one ever thought of applying the same epithet to premature delivery when effected by the surgeon in accordance with the rules of medicine. He further maintained that the question, though delicate, was one which in practice must be subject to the general rules of conscientious restriction imposed upon the medical man by feelings of moral rectitude and professional responsibility.

M. Trousseau has resumed the subject of gout in his clinical lectures at the Hotel Dieu; and in continuation of his remarks on a previous occasion, proceeded to treat the subject of chronic gout. "This form of the disease," said the Professor, "declares itself, for the most part, in the middle-aged period of life. Nevertheless if, as sometimes happens, the acute form has occurred in extreme youth, it is not in such individuals unfrequently observed under the chronic type, even at so early an age as thirty-five, more especially if the patient, impatient of suffering, have succeeded in prematurely checking the earlier attacks, and have neglected the principles of hygiene and regimen on which I shall shortly have to insist. Some years ago I was called to treat a child, five years of age, a Moldavian by birth. This patient suffered from asthma, occurring in paroxysms, and from pulmonary emphysema. There did not appear to exist in this case any hereditary transmission either of gouty or rheumatic diathesis. The child's parents, grandparents and ancestors had been free from both. Two years subsequently I saw the patient again, and this time with a well-marked attack of gout in the great toe. I confess that I never saw the malady more clearly defined in any subject, and never met with it in so young a person. Morgagni, however, together with Sydenham, Ettmuller and Scudamore all mention instances of this disease occurring in children. It is certain that individuals of the male sex are much more subject to gout than females. Hippocrates has said that women were only subject to this complaint after the cessation of the menstrual function; and he is, perhaps, right in the main, although you may occasionally observe exceptions to this as to every other rule. The occurrence of repeated attacks not only damages the integrity of the joints affected, by giving rise to permanent engorgement and stiffness, but also affects the general health; add to which, cramp and muscular spasms, of a transitory but most painful character, not unfrequently supervene in the interval of respite between the acute fits; or the gout, leaving the joints, may spread to the tendinous sheath, producing chalky deposits, which interfere with free movement, and occasion deformities of the limbs. Erasmus, in writing to his friend says: 'I have the gravel and you have the gout, we have married two sisters.' And, with truth, the kinship is a close one. Few gouty patients live long without suffering from renal calculi, and undergoing the exquisite torture of nephritic colic, to say nothing of the damage subsequently done to their constitutions by the pernicious abuse of the alkaline treatment usual in such cases. I do not believe that the waters of Vals, Pougues, Contrexiville, and Vichy possess a solvent action upon calculous formations in the kidney or bladder. When a stone is lodged in the former organ, it must of necessity be expelled, and falls into the natural reservoir for the urine. The physician can no more cure renal calculi than he can those which obstruct the gall-duct. What is in his power is the prevention of the formation of others by the maintenance of the urine in a healthy condition, as the biliary calculus may be prevented by the securing a healthy secretion of bile. The gouty diathesis is the only one in which the secretion of 'tophus' is met with. This deposit is composed in part of urate of lime, in part with phosphate of lime. Its occurrence has long been known; and in the great 'Dictionary of Medicine' may be found the history of a gouty subject who produced such a quantity of chalk-stone during his lifetime as to supply sufficient material for his own tombstone after death. Some observers maintain that the deposit of chalk-stone takes place during the occurrence of the attack; but this belief is inexact. It is produced during the intervals of freedom, and generally soon after the cessation of the fit. In a family of gouty subjects, you may often meet with the diathesis in a masked form. The constitutional malady may appear under the disguise of asthma, periodical erysipelas, biliary or renal calculi, epistaxis, headache, or disease of the skin. Recamier had already noted the frequent occurrence of headache in gouty subjects, as also the alternation of headache and gout, as well as of gout and asthma.

I have a patient at present who, in early life, became subject to both asthma and gout. When the joints become affected and inflamed, his breathing is easy; and when the paroxysms of oppression and suffocation come on, the joints cease to be painful; and when at last he suffers from nephritic colic, and passes an abundance of gravel, he has neither gout nor asthma. But, as I have before said, asthma is not the only affection which may alternate with gout; there may exist skin complaints, as eczema, chronic lichen, or herpetic eruptions, which owe their rise to, and for the time supply the place of the latent constitutional cause. Bright's disease, chronic catarrh, congestive disorders of the chest, and pleural effusion, are often found where this diathesis exists. M. Rayer's observation of the prevalence of albuminuria in chronic gout, is a truth of which I have long, from my own experience, been convinced. This reminds me of a sentence in Pierre Desault's 'Dissertation on the Gout,' which runs thus: 'Whenever I am called to see a patient subject to gout, who presents other symptoms, of whatever nature they may be, excepting those connected with contagious disorders, I never lose sight of the gout, and I carefully examine to see whether the gouty humor be not playing its part under the mask of the the complaint which is apparent, and for which I have been called.' I regret much that my predecessor in the chair of clinical teaching, M. Chomel, whose excellent practical sense many of you have been able to appreciate, should have lived in the conviction that gout and rheumatism were the same disease, and should have thus propagated an immense error. While the pericardial lesion is the necessary secondary symptom of rheumatism, gout, on the contrary, rebounds back upon the lung, liver, and kidney; whilst rheumatism affects all indiscriminately, gout strikes the rich more than the poor, females rarely—'Nisi vetulas et viragines, et plures interemit sapientes quam fatuos.'"

M. Mandl, who is at the present moment lecturing at the Ecole Pratique on the maladies of the larynx and the use of the laryngoscope, makes the following remarks on the treatment of chronic laryngitis, which are rendered valuable by the great experience of this gentleman in this particularly intractable class of disorders. This practitioner is not a partizan of the employment of sulphurous water, so generally believed of service in these cases. He is much more inclined to attribute the cures which have been obtained after a sojourn at Eaux-Bonnes or Luchon to the influence of rest, than to any alternative power possessed by these mineral sources. Of internal remedies, the only class to which M. Mandl concedes any certain efficacy is that of the preparation of iodine; but, *en revanche*, he believes that much may be done by topical applications. He recommends the neck to be kept warm, and, in order to insure constant preservation of the skin from impressions of cold, protects the throat externally with a coating of gutta-percha collodion; and enjoins the wearing of Jeffreys' respirator. In some cases the excision of the uvala and tonsils must precede all other treatment. The remaining means of cure are the inspiration of vapors or fine powders, and cauterization. The best vapor for inhalation is the steam from boiling water; and the powders found most efficacious, either for inspiration or insufflation, are those of nitrate of silver mixed with water, or of alum. The caustic applications consist of strong solutions of nitrate of silver, the acid nitrate of mercury, sulphates of copper or zinc, chromic acid, or of a watery solution of iodine and iodide of potassium (the proportions of the latter preparation being—of iodine sixteen grains; iodide of potassium, two drachms and a half; and three ounces of water). These remedial agents may be conveyed to the larynx under the guidance of the laryngoscope, either by means of a sponge on a stalk of whalebone, or by the laryngeal syringe (a curved tube terminating in a rose like that of a watering-pot, and fitted to an elastic india-rubber bottle). The lecturer, in concluding, expressed a hope of soon being able to furnish some details regarding the value of the perchloride of iron in this special branch of the therapeutics, the drug in question being at present the subject of experiment at his *clinique*.

I have to announce another birth in the family of the 'Scopes, the last addition being the Pharyngoscope. This instrument—an invention, or rather I should say modification, fathered by Dr. Moura-Bourouillon—does not differ in any important particular from its next-door neighbor, the laryngoscope, and consists of a circular concave mirror, with a magnifying lens of short focus. For the examination of the teeth, gums, inside of the cheeks, palate, isthmus of the fauces, pharynx, &c., it will be found most convenient, and if cheapened and simplified will no doubt become popular.

The creation of a great hospital in this capital for the treatment of mental disorders is spoken of, and I am told decided upon *en principe*; and other important changes are in contemplation likely to modify very materially the system of administration at present followed in this particular branch.

The last number of the *Gazette des Hopitaux* mentions a case in which the secretion of milk in a young female having ceased in consequence of an interruption of one month's duration after six months of lactation, the flow of milk was recalled by means of three applications of the electrical stimulus to the breasts, continued for three successive days.

M. Maisonneuve, to the success of whose operations for the ablation of necrosed bone by subperiosteal excision I have already referred, presented to the Academy of Sciences last week several specimens of diseased osseous tissue, removed according to his method during the past month. The memoir accompanying these pathological specimens more especially directs the attention of the surgeon to the facilities with which this new *modus operandi* endows the practical branch of medicine. "An operation, such as that of the removal of the upper or lower jaw-bone," says the author, "by the ordinary rules of procedure is a very formidable affair, entailing several incisions, the ligature of many arteries, and the exercise of considerable force and skill; whereas, by the subperiosteal method the bone may be enucleated from its fibrous sheathing by a single incision, just as easy as an encysted tumour is withdrawn from its enveloping sac." Some allowance no doubt should be made for parental partiality, in the encomiums lavished by M. Maisonneuve upon the surgical improvement which he has to a certain extent originated; still the modification seems to be most valuable, and strictly in accordance with the conservative principles daily gaining ground, and moreover based upon sound physiological data.

The debate on the subject of post-mortem Cæsarean operations closed last Tuesday at the Academy of Medicine, and the conclusion adopted was as follows:—"The medical man who shall believe there is a hope of withdrawing from the body of a woman who has died in a pregnant state a living child, can and should practice the operation of hysterotomy, according to the rules laid down by science." To M. Depaul is due the entire credit of having forced from the Academy this definite expression of its opinion, which in a former discussion had been withheld. For the repugnance evinced by this learned body to deliver a precise verdict on this question it is not easy to account; more especially when it is remembered that in its ranks are included the names of all the most celebrated authorities on medical jurisprudence in this country, to whose opinions the legislature would naturally have had recourse for the ultimate settlement of so delicate a point. The original promoter of the discussion, M. Hatin, died but a few days ago—too soon, unfortunately, to enjoy the gratification of having been mainly instrumental in solving one of the many doubtful questions by which the medical man is hampered on all sides in the performance of his duties.

Every oculist knows, and some unfortunately *to their cost*, the ponderous and complicated fixed ophthalmoscopes with which Germany has gifted the profession, and the use of which has been deemed indispensable to a correct study of the diseases of the internal eye. It is with some relief that I notice a simple and perfectly efficient instrument which has been submitted by M. Alphonse Desmarres (son of the celebrated opthalmologist) to the Academy of Medicine, as a substitute for the expensive and unwieldly contrivances we hitherto possessed. An upright stem, on which moves a double-branched rest, forms the skeleton of this instrument, the accessories being a common Desmarres ophthalmoscope, a biconvex lens, and a cork. When the apparatus is required for use, the cork is fitted to the base of the stem, which can then be adapted to a common candlestick; one branch of the rest holds the mirror, the other the lens, and the two being connected by an ordinary compass-joint, the necessary focal distance is easily attained. For the support of the chin of the patient when under examination, M. Desmarres uses a pile of books placed on a table.

In a late trial at Colmar, a medical somnambulist, who had made use of his so-called science for the extortion of money, was acquitted because the Judge "did not consider that the nullity of magnetic somnambulism, as a curative agent or as an auxiliary of medicine had been scientifically demonstrated!" I think that the Judge at Colmar would be all the better for *un petit coup de la* LANCETTE.

I received a letter from Naples which confirms the unsatisfactory account of the sanitary condition of that capital. According to official documents, it is stated that in the space of three months no less than two-thirds of the medical attendants, nurses, and persons engaged in the hospitals had fallen victims to typhoid fever, imported originally from Gaeta; a large number of children have also been carried off.

In Paris the same fever has also been prevalent, but is now on the decline, as likewise the epidemic of erysipelas by which it was accompanied.

Last Tuesday, at the Academy of Medicine, M. Bousquet, the implacable adversary of M. Piorry's doctrines, before leaving town for his holiday, discharged, not as some of the papers term it, a shaft, but a veritable broadside into his enemy's flank. He attacked on a former occasion M. Piorry's nomenclature, and he now treats his doctrine of "organopathy" with as little reverence as that shown to the nosological vocabulary. "It is said," remarked M. Bousquet, "that the Professor of the Charite, dissatisfied with the doctrines of his predecessors, has aspired to the honor of founding a new one. Such is certainly the greatest glory to which a great mind can desire to attain, and I am not astonished that the object should have attracted the ambition and talents of M. Piorry. Nevertheless, whatever be his originality, I fancy I can trace more of the *souvenir* than of invention in his principles; and I think I have met with some such theories, possibly slightly altered in form in the history of that old school of Gnidos, formerly so celebrated, but now so perfectly and deservedly forgotten. The system of this school consisted in the definition of each symptom as a separate disease, for the possession of so many of the former, so many of the latter were credited to the patient's account, the profusion of the remedies being in proportion to the number of alleged maladies. Such was the spirit of the school of Gnidos, and such is still that of M. Piorry. M. Piorry is an organician. He admits, it is true, the existence of a soul—of a vital entity for the animation of the organs; but once animated he discharges the vital principle; he will have nothing more to do with it. He sees nothing in the body besides organs, tissues, functions and properties. Although perfectly aware, as we are all, that disease incubates mysteriously within the organism before it becomes palpable, yet because this period, the first and most important of all, is apparent to the reason alone, and is hidden from the senses, he ignores its existence, waiting patiently until the affection of the tissues shall reveal to the senses the commencement of the malady. From a lack of reflection, he confounds the *affection* with the *reaction*, the morbid *state* with the morbid *act*, and those diseases which are the offspring, so to speak, of the free action of the organism with the physical and passive lesions which are produced by external force. He confounds, lastly, medicine with surgery, and that with the hope of winning over surgery to his cause. Again: how is it possible to allow M. Piorry the privilege of considering each symptom as a separate malady?—flatus in the intestine, the distension of the bladder by urine, an excess of saliva, a little mucous in the bronchi, the occurrence of delirium, and what more; such are his diseases, or rather his organopathic conditions, for I must not forget that his pathology contains no diseases. Let my hearers, however, moderate their exultation; nothing is gained by the change, for these are organo-pathic conditions which (although M. Piorry will not call them diseases,) still, by his own admission, cause suffering and death. What, again, I cannot allow to M. Piorry is, that a plurality of symptoms and the composite nature of a disease exclude the idea of morbid unity. He might as well maintain that the human body ceases to be a whole because it has been ascertained to be made up of a multitude of organs. What letters are to words, and figures to numbers, the morbid elements are to the morbid species. M. Piorry knows the letters tolerably well, but he cannot spell. He knows the figures, but he ignores their relative value. All is as disjointed, unconnected, and inharmonious in his pathology as that of Euryphon, the first of his race. M. Piorry's therapeutics correspond to and resemble his pathology. His treatment of a typhoid fever has been detailed by Dr. Pietra-Santa, who was present on one occasion and witnessed the practical working of this system at the bedside. Five organo-pathic conditions were made out, and all were opposed by five different remedies: for the corruption of the blood, ventilation, pure air, and diluted drinks were enjoyed; for the bronchitis, a linctus was ordered; for the engorgement of the spleen, sulphate of quinine; to combat the intestinal obstruction, Seidlitz water; and for the lesion of Peyer's patches, an enema of decoction of senna leaves. Such was the first day's prescription in a case of typhoid fever."

After a long enumeration of some of the wonderful peculiarities of M. Piorry's practice, M. Bousquet reminded the Academy "that in one of the cholera epidemics, when diarrhœa was very common and unmanageable, the Professor of the Charite had suggested a curious method for the control of the intestinal flux; he *proposed to plug the rectum!*" This practice he says owns a name in the nomenclature, and is registered under the title of "*bondonnement.*" The speech is too long for me to give you more than a few extracts, which are, however, unfortunately emasculated by translation, M. Bousquet's style being peculiarly caustic and telling, and productive of the greatest effect—not that any, indeed, is requisite to convince the medical public of France of a fact it has long been most painfully alive to.

M. Revill, an intelligent chemist, subsequently read to the Academy a memoir, illustrating very forcibly the necessity of some interference on the part of the legal authorities in order to restrain the employment of poisonous substances in the preparation of cosmetics, and the dangers which beset the public in consequence of the indiscriminate use of deleterious agents in the manufacture of the various quack lotions and ointments sold for "beautifying" the skin.

M. Marjolin, Surgeon to the Children's Hospital (Ste. Eugenie,) presented to the Society of Surgery last week a naso-pharyngeal polypus, extracted after death from the nostrils of a little girl, aged two years. When the child was admitted under his care on the 11th instant, death from asphyxia was imminent, and on examination both nostrils, as well as the upper portion of the pharynx, were ascertained to be blocked up by a firm tumour, apparently of a fibrous texture. No operation was attempted, and the child died forty-eight hours afterwards. The autopsy showed the tumour to be firmly adherent to the Schneiderian membrane, with which it was in contact on all sides, and revealed likewise its deep attachment or implantation to be the periosteum covering the lower portion of the body of the sphenoid and the basilar process. Such cases are fortunately rare at this early period of life; but surely the surgeon would have been justified in making some attempt to save the child.

M. Colin, who has experimented largely upon the sensitive properties of the ganglia and branches of the sympathetic system, has forwarded to the Academy of Sciences his conclusions, which, in a great measure, confirm those of M. Flourens, who had preceded him in the same investigation. He finds that the ganglia of the great sympathetic are all sensitive, but in varying degrees; the semilunar and thoracic much more so than the superior cervical. The more bulky ganglia are more sensitive in those portions of them which are thick, grayish, and homogeneous, and less so in the thinner, striated, and plexiform parts. The sensibility of the ganglia is more readily excited by pinching than by a prick, or application of a caustic. The irritation applied is felt immediately if it be strong enough to excite any sensation. The ganglia after a certain amount of irritation lose their power either of feeling or of transmitting impressions to their nerves. The ganglionic nerves are also sensitive, but much less so than the ganglia, and the sensitive power diminishes with their increase in size, and in the smaller branches is reduced to a minimum. Of the ganglionic nerves the most sensitive are those connecting the ganglia with the cerebro-spinal axis; then come those which connect the ganglia together, and least of all are the nerves which supply the intestine.

There are certain cases of chronic iritis, with closure of the pupil, in which the retina is sound, and the resistance opposed to the entry of luminous rays by the opaque iris is the only impediment to vision. But besides the atresia of the iridiad diaphragm, other morbid changes have occurred, which render a simple excision of the iris either useful or hurtful—namely, a synechia posterior, and the iris is glued to the anterior surface of the crystalline capsule. The ordinary operation for artificial pupil is here inadmissible, its performance being invariably followed by inflammation and consequent opacity of the lens. In such cases, M. de Græfe advises the extraction of this body as a preliminary step in the treatment, and recommends that an interval of four weeks or two months be allowed to elapse before iridectomy be resorted to. This method, which appears to be a revival of Wenzel's plan, is stated to have been attended with the best results.

THERE were seventeen surgeons killed and wounded in action from the beginning of the Indian mutiny until the fall of Lucknow.

The Chemical Treatment of Disease.

BY C. B. HALL, M. D.

THE short time I can spare for an essay could be readily occupied in naming the different hypothesis advanced for the explanation of the *modus operandi* of medicines, all at variance with one another, all failing when put to the test of practice, and yet none without some grounds of physiological truth for their foundation.

I propose, therefore, that we leave as we find them those sound principles of nosology that have stood already the experience of men of learning and thought, and devote a few minutes to the consideration of Liebig and Muller's opinion that inflammation is an oxydized state of the proteine, and that all disease is the result of disarrangement of the affinities of particles, and see how far a chemical treatment may serve as an adjunct to a regular course of medicine. We do know of strange animal changes constantly attending the animal economy. Thus, in the normal state, the gastric juice, the almost first stage in nutrition, is acidulous, while the blood, the result of this digestion, is alkaline. Again, we have the secretion from the liver, the largest secreting organ in the body, with an alkaline base, while the product of the no less important organs, the kidneys, is uric acid. We have also the oleaginous and albuminous secretions, the representatives of nitrogen and carbon, as we find others of oxygen and hydrogen, the two other elementary principles of all organic compounds. This in the healthy state. How innumerable the effects of their slightest variation in disease! not acknowledging the theory that this constitutes disease, but simply viewing them as coincidents and their regulation as concomitants.

Take, for instance, the simplest form of congestion, or perhaps more properly, torpor of the liver, found in the moderate drinker, particularly the beer-drinker, and more particularly when in moderation he has taken a little extra, with a few glasses of spirit; you find the tongue coated with heavy white fur, the gums pale and the fauces dry, the patient complaining not so much of constipation of the bowels as a difficulty in passing what he calls a gummy, sticky sort of substance, which clings to him with a tenacity almost immovable, and of a dark green color, with very little odor, and attended by smarting, but no pain. The usual remedy for this is blue pill and black draught, or, as an old friend of mine in the country takes, ten grains of submurias hyd., followed by salts and senna. Chemically this is an acidulous excess, both in stomach and liver, and ten grains of carbonate of soda to act on the stomach, and ten of bitart. potass. to neutralize the hepatic secretion, in a glass of cold water, will often effect a cure in a few hours.

One of the most troublesome attendants of bilious as well as of infantile remittent fever, is the constant passing of green bile with mucus, showing its irritating effect on the membrane, thus provoking the febrile action and otherwise retarding the cure. I do not mean to say that liq. potass. or any other preparation of that alkali will cure bilious fever, but there is no doubt their use will correct this abnormal secretion, and thus effect one of the most important indications.

On the treatment of dysentery or diarrhœa, or whatever name you give to the various bowel complaints of children, you find a double action, or one extreme running into the other. If you are consulted in the early stage, you find the tongue slightly coated, but white, appearing as if the child had just taken a drink of milk. The stools green, somewhat painful, but not frequent, &c. This is usually treated with antacids, as eyd. c. creta, with creta c. opii comp., or barb. soda, so that I have no particular point to call your attention to. But what is far more likely, you do not see the case till various pills and potions have been administered by the too confiding parents, suggested by the too-knowing neighbors, *whose children have been exactly the same*, and cured by the far-famed remedy. You find the tongue coated in the centre with a dirty white, inclining to brown, the tip and sides red, the fauces, gums and lips of the same color; a painful expression of countenance, with a whining, feeble cry, constantly picking the lips or ends of its fingers; stools more frequent, of the color of the coating of the tongue, more painful before each motion, and increasing in frequency, &c., and you will invariably find an alkaline reaction, the stools often effervescing with nitric acid. Whatever course of treatment you would suggest, you will find its efficacy most wonderfully advanced by an acid accompaniment, such as tr. ferri muriatis. Or still further, you might find the eye sunken, with a dark areola; skin something of the color of the tongue; flesh full, but flabby and doughy, with other strumous indications. Here is an opportunity for a double chemical action. Feed the child on starch, and give diluted nitric acid. You will not only furnish the best nourishment, and counteract the excess of alkali in the system, but nitric acid converts the starch into oxalic acid, than which no remedy appears to have more specific power over the strumous diathesis.

Take another familiar example with children, one in which you have no doubt been sorely tried, and wished, like the patient man of old, "your enemy would write a book" on it. A child at breast—the mother, strong and healthy, eats her meals with relish, has plenty of milk for the child, even more than it requires. This you find, on standing in the glasses, rich, and covered with thick, almost buttery cream. She tells you the child nurses freely, and throws it up without any curdling. Bowels inactive for a few days, then three or four motions a day for a few more. Pulse feverish, child pale, fretful, crying and whining constantly. Here is a case of infantile indigestion, tending to cachexia. You prescribe infusion of cinchona, or some tonic, but without avail. Chemistry says, if you give that child sugar, it will convert the casein of the milk into lactic acid, the natural gastric juice of the child, and experience confirms the magical effect.

A white tongue is not a characteristic of pneumonia (I mean a clean white, like milk, distinguished from the snow white of inflammation); but your experience will call to mind many cases of this formidable disease with this anomalous attendant, and its no inconstant fellow symptoms of an acidulous action, the discharge of green bile. The chemical treatment in this case is to combine liquor potassæ or bi-tart. potass. with your other remedies.

Rheumatism has been so frequently associated with excess of acid, that theorists have, for a few years past, laid down an alkaline course of treatment—but that excess of acid in the acute, or of alkali in the chronic, is symptomatic of the disease, I utterly deny. And here, in an opinion at variance with such a name as Golding Bird, let me ask if your own observations will not join me in the assertion that there is a marked difference between rheumatism in Europe and rheumatism in Canada, particularly those of you who have had an opportunity of seeing cases in the hospitals of London as well as this country. Nothing struck me more forcibly. Not to detain you with the question just now, I may allude to the well known fact that in England the chronic form tends to rheumatic gout, while in this country it assumes the nature of palsy. However, that the excretions in some cases, and often in certain stages of the same case, will acknowledge the test of alkaline and acid excess respectively, I think I may safely state as proven; hence it is our duty to seek out the admonitions that chemistry suggests, and govern ourselves accordingly.

The powerful antiseptic and disinfecting effects of chlorine have been long known, but until the accidental discovery of chloride of potassium, a few years ago, the different forms in which it was necessarily administered contained objections commensurate with its advantages. This salt is free fror any of the difficulties of former preparations. Not so caustic for local use as chloride of lime, and more effective than the chloride of sodium, it imparts its chlorine readily, and leaves the potass. as mild a caustic and gentle stimulant as could be wished—and whenever it has been applied to fœtid and indolent ulcers, the whole array of yeast and charcoal and other carbonaceous applications have fled before it in confusion. In that modern and most dreaded disease, diphtheria, there appears to me to be no safety in any other remedy. This is a malignant fever with putrid sore throat, the whole lining surface of the fauces and pharynx throwing off a false membrane, which again immediately forms attachments in places, and thus hastens dissolution by a mechanical obstruction. Gentlemen, whose opinions I cannot but respect, still place their trust in the nitras argenti; but its application is very difficult, as it should touch *only* certain places, and its effect uncertain, while two or three free applications of the chloride of potass. with a sponge, will almost completely remove the local difficulty, and leave you a fair wind and an open sea.

Thus I have viewed chemistry only as an adjunct or a chief assistant at our labors; but as we rise in the scale of disease, and find, as we do, our difficulties increase and our skill more at fault, we may be induced to look to this science as the polar star in our distress, and the guiding spirit to carry us through the storm. To include under one general term, the different disorders of this kind, such as albuminuria, tuberculosis, phthisis, &c, I will speak alone of scrofula or general cachexia, and of course will not attempt any minutiæ of detail.

We find an excess of fluid over the solid part of the body, as well as deficiency of fibrin or muscular fibre, and often total want of some important constituents of health, such as phosphorus and sulphur. Or we have excess of hydrogen, with loss of nitrogen. On the use and distribution of these two elements depend, almost solely, our hopes of cure; simply using carbonaceous and oxygenated substances as nourishment, to keep good the supply and preserve the waste, until we can affect a change in the other ingredients. That chemical changes do not take place with the same certainty and regularity of the system, influenced by vitality, as in the alembic and under our observation, I am willing to admit; but that these changes are more or less definitely and correctly effected while circulating in the blood, I think can be as clearly proven. As an instance, and as it constitutes a most important part in our curative process, give, for a few days, cod liver oil with phosphate of lime, and you will detect the dumb-bell crystals of oxalate of lime in the urine. Now, this can only be effected by the change of carbonic acid and carbonic oxide into oxalic acid, which from its stronger affinity sets free the phosphoric acid and unites with the lime. This change is easily produced in some part of the transit through the circulation.

Raw beef, pounded to shreds, has of late received the approval of the London and Continental Hospitals, as food in these cases upon physiological reasons, particularly its ready transformation with little effort of nutrition to the much needed fibrin*—but we also find that the pounding divests it of its cellular substance or cellulose, which is composed of hydrogen and oxygen in the exact proportions to form water. So the three, carbonic, oxalic and tartaric acids, to which so much importance has been attached, contain, two of them none, and the other a very small proportion of hydrogen, which may materially check that ready solvent from carrying the most important solids out of the system. I cannot agree with the one-man power of Dr. Churchill, about the use of hypophosphites, but have no doubt of their most important efficacy when combined with cod liver oil so as to produce the chemical transposition before mentioned.

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* **Mr. Hall certainly does not mean to say that fibrin and muscular fibre are one and the same thing?—Ed.**

The chemical indications of cure, therefore, consist in the proper regulations of hydrogen and nitrogen. The first by keeping from the system all such articles of diet as contain the elements of water, and using for medicines, like medical compounds, the few acids I have named. The second by conveying into the system as much as possible of substances rich in nitrogen. Of these the principal are nitric acid, nitrate and cyanide of potass., and the different preparations of ammonia, the chief of which is the muriate—with articles of diet confined to caseine of milk, albumen of egg, and fibrin from beef and mutton.

Fruit, often highly recommended, derives its principal advantage from the long mastication required, causing a greater quantity of atmospheric air to be conveyed to the stomach with the saliva.—*British American Journal.*

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THE EFFECT OF SANTONINE UPON VISION, AND THE REASON FOR IT.—By Professor Franceschi, of Bologna.—The peculiar effect of santonine, the alkaloid of the European Woodseed, *Artemisia contra*, in giving to all objects a yellow hue, in the eyes of the patient, is attributed to its purely physical properties, and not to any elective stimulation of the optic nerves and retina. Pure santonine is white; when exposed to the light it becomes yellow. In parts of the body to which light does not penetrate it remains white, but in the tissues of the eye it is exposed to the light, and gives rise to the apparent coloration of objects. Professor Franceschi bases his views upon these experiments. He put two grains of santonine in water, and exposed them for twenty-four hours to the light. They became yellow, and then he swallowed the mixture. He found no modification of vision or coloration of the urine. He afterwards took two grains of santonine unchanged in color, and the result was the yellow vision; and the urine, which at first emission was clear, promptly became yellow, and even of a greenish tinge.

If these conclusions may be admitted, the reported virtues of santonine in restoring the impaired functions of the retina and optic nerve must be greatly questioned. The query may be put, if the colored vision is due, as averred by Professor Franceschi, simply to coloration of the santonine, which has found its way into the tissue of the retina. Ought not the yellow color to be discernible in the skin, where it must be presumed the santonine will also be found?—*American Medical Times.*

WE are glad to learn that Professor F. H. Hamilton has entered the army service as surgeon of the Thirty-first Regiment of New York State Volunteers. Whoever has examined the list of surgeons passed by the different State Examining Committees must have regretted to find so few names of eminent surgeons. It is especially gratifying to us to know that the State of New York is now represented in the volunteer army by the best talent of the medical profession.—*Ib.*

Pus Corpuscles in the Air!

AN AEROSCOPIC STUDY BY DOCENT DR. THEOPH. EISELT IN PRAGUE.

[Translated by J. C. White, M. D.]

DURING an epidemic of conjunctival blennorrhœa, which prevailed a short time ago in the Orphan Asylum at Pepy, eight miles distant from Prague, I had opportunity to learn by experience that infection may take place in other ways than by contact. Reserving for future description the particulars of this interesting epidemic, it will be sufficient for my present purpose to show its intensity by a few numerical data. Such foundlings as are given up by their foster parents are brought to the large and newly-built institution at Repy. Among these 250 foundlings, of whom the majority are between the ages of six and ten, there occurred in 1860, from November to December, forty-six, and in the period between the 16th and 21st February, 1861, also forty-six cases of acute conjunctival blennorrhœa. His Excellency the Governor of Bohemia, Count Forgach, presided personally on the 19th of February at a council in Repy, at which Professor Ritter von Hasner, Landesmedizinalrathsubstitut Dr. Hoser, Dr. Biermann, Director of the Hospital, and myself as house-physician, were present, and ordered the perfectly healthy children to be left at Repy, but the diseased and infected to be removed with the greatest haste from the institution. Forty-six children were found unaffected, while the newly attacked and those which exhibited merely an injection of the conjunctiva or papillary structure of the membrane without suppuration, were brought to Prague, and distributed in eight different localities. In the latter place, four-fifths, and in Repy all the children, were under my care.

It will readily be believed that as a physician I took the greatest precautions to protect myself against infection. I was particularly careful not to touch my own eyes. The cleansing of those of the patients was entrusted to the Sisters of Charity, and most punctilliously performed. No chance of contagion from this source was possible, therefore, nor did any scattering of pus take place either by the patients sneezing or coughing during their examination. I was in the habit of going to the Asylum at Repy daily, where I first examined the healthy inmates, then touched the lighter cases of the diseases with cuprum, and visited the worst last of all. Whenever I had in this way spent a few hours in the wards, I was sure to feel a sensation of burning and pressure in the eyes, without being able to observe anything upon the conjunctivæ except streaks of injection on the edges of the lids. In the course of a few hours this unpleasant feeling disappeared of itself. When the patients were brought to Prague and I visited them daily, this sensation of pain remained constant, the caruncles became red, as well as the whole conjunctiva palpebrarum, and the semilunar fold became livid and so œdematous that the movements of the globe became impaired, accompanied by a mucous secretion, so that the lids adhered in the morning. In other words, I was infected without having become so by contact. The same happened without exception to all the nurses. Of seven of the nuns severely affected, two had caught the disease by the spattering back of the water while cleaning the eyes, two from the dissemination of pus by the sneezing and coughing of the children during the same process, one by washing the bandages, and two in some inexplicable manner. The infection in my own case only needed more unfavorable circumstances to become converted into an acute affection; as it was, however, application of weak solution of nitrate of silver caused it to diminish in intensity.

Here, then, we have the fact that a person may be attacked by an acute conjunctival blennorrhœa without purulent contact, in the ordinary sense; there is wanting only the explanation, how is this possible?

Pouchet, who for many years has been engaged in the microscopic analysis of the air, describes in the *Compt. Rendus* for April, 1860, an apparatus which he calls an aeroscope. Through the kindness of our respected Professor Purkyne a similar contrivance was prepared here. It depends upon the plan of driving a certain quantity of air across a glass plate moistened with glycerine, upon which the particles of dust and microscopic forms remain fixed, and may be thus readily examined by the microscope. The apparatus consists of a hydrostatic aspirator and two glass tubes, of which the first terminates at its upper extremity in a small funnel, the infundibuliform opening being directed upwards, while the lower is drawn out into a point of 0.50 of a millimetre in diameter. The second tube is ground into the first, and its upper opening is covered with a fine metallic sieve, upon which the glass plate is fastened. This plate is brought to within one millimetre's distance from the lower funnel-shaped opening by pushing in the tube, and the lower end of tube No. 2 is hermetically united to the aspirator, which is filled with water. The latter is merely a vessel made of zinc plate, two feet high and one foot square at its base, having at the bottom a stop cock, and in the cover a mouthpiece for connection with the glass tube. If now the water be allowed to flow from the aspirator through the stop-cock the same bulk of air will stream in through the funnel, and the matter suspended in it will remain sticking to the glass plate.

This aeroscope, as modified by Professor Purkyne, was placed between the beds of two patients in a ward in which there were 33 boys with acute conjunctival blennorrhœa, accompanied by great secretion of pus, and the air was drawn through it. It must, moreover, be stated that the eyes were washed by means of glass syringes with warm water, and that from this room alone several pails of waste water were thrown away daily, presenting a milky appearance from the pus it contained. The experiment was made at ten, A. M., after the apartment had been ventilated, *and pus corpuscles were detected in the atmosphere by the very first transmission through the apparatus.*

In this fact lies the explanation of the attacks above described, in which cases direct contact with the patients and the blennorrhagic secretion was excluded. *Infection took place by means of pus corpuscles suspended in the atmosphere.—Boston Medical and Surgical Journal.*

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The Dismissal of Pirogoff.—Professor Pirogoff, the eminent Russian surgeon, has been summarily dismissed from his chair in the University of Kiev, simply because he proposed the institution of a special tribunal to which the students of the University should be amenable, independently of the civil police. This course, the *Lancet* says, is the custom in that country when a subordinate dares to dissent from imperial orders, or to think for himself on matters of administration.—*Medical and Surgical Reporter.*

The hospitals for the army in the District of Columbia have now been fully organized by the War Department. The Nursing Department is now under the charge of Miss E. A. Powell, of New York.—*Ib.*

On the Communicability of Secondary Syphilis.

At a special meeting of the Brooklyn Medico-Chirurgical Society on the 11th of June, 1861, the following report on the above subject was submitted by the committee appointed for that purpose:

FIRST EXPERIMENT.

A young physician, W. R., offered himself to the interest of science as a subject for syphilitic inoculation. He was at the time twenty-four years of age, healthy and robust, and never before infected with the disease. One of Wallace's methods was employed. By means of a small vesicatory, the cuticle upon the left arm was raised, the vesicle opened, and under the epidermis, on the 5th of January, 1852, matter inserted, taken from acne pustules in the frontal and superciliar region of Case No. 2.

Jan. 10th. No local effect, the blister is healing in the ordinary way.

Jan. 20th. Soon after the wound had healed, a papulous eruption appeared, accompanied with itching over the whole arm, as is not seldom the consequence of cutaneous irritation by blisters; the symptoms passed off spontaneously.

On the 28th of January, a new irritation, redness and itching at the vesicated place was observed. On that day the redness was of a dark and coppery shade, and the vesicated place firm and infiltrated, more especially at one of the lower angles. At the same time some tuberculous eminences were recognizable. No pain.

Feb. 10. The vesicated place was covered with a reddish brown, firm tubercles, grouped and covered with thin scales. Those that first appeared had thicker and darker scabs from the exsiccation of matter superficially formed.

Feb. 18th. (Forty-second day of inoculation.) Some of the tubercles much larger, projecting more, and are covered with laminified scabs, resembling those of rupia. Below them there is suppuration. The cutis yet firm and infiltrated, particularly towards the margins of the vesticated spot. Some tenderness along the ascending lymphatics; some axillary glands painfully swelled.

An attempt was made with iodide of mercury (10 grains to the ounce,) to subdue the apparently still local symptom, and in the beginning the attempt seemed to be successful. The tubercles grew rapidly smaller. The firmness of the skin evidently changed its consistency. At the end of a fortnight only the larger tubercles remained visible. After the ointment had been for some time discontinued, a new increase of the symptoms took place on the 14th of March, being the seventieth day after the inoculation. The infiltration increased again, and luxuriant but dry tubercles sprang up. Another attempt was made to arrest the constitutional invasion by applying a paste of chloride of zinc and starch. The slough removed the affected portion of the skin, and its detachment was accompanied by copious suppurration and healthy granulations. The cicatrization soon followed.

June 12th. Up to this day, which is the one hundred and fifty-ninth after the inoculation, and the one hundred and thirtieth since the first appearance of local symptoms, the patient had been constitutionally well. But now a general feeling of indisposition began, with a moderate gastric derangement, headache, and want of sleep. A week later a spotted redness about the tonsils and soft palate was noticed, which were soon covered with grayish white, apparently granulated exudation. Eventually, those spots ulcerated. A similar change was noticed also inside of the lower lip; another on the left of the frenulum lingue. The cervical glands were swelled. At a still later period, the scrotum became the seat of red infiltrated, secreting, superficial rhagades, (tubercles muqueux.) A treatment with corrosive sublimate and proper diet, effected in a few weeks (15th July,) a cure, and up to the 20th November no manifestation of further trouble appeared.

THE SECOND EXPERIMENT

Was instituted upon Dr. Warnery, of Lausanne, who placed himself with laudable readiness at the disposition of Rinecker. Dr. W. was particularly well qualified for the experiment. He united with zeal a great minuteness in experimenting and observing. He was perfectly well and had never before suffered from syphilis, but had submitted to syphilization for a period of six weeks, when the thirteenth insertion was made. There he stopped the experiment. It should be remarked that each artificially produced chancre was regularly destroyed on the fifth day after the inoculation. Since the last syphilization six weeks had elapsed, and, as already stated, Dr. W. was perfectly well.

On the 13th of February, the inoculation of secondary virus was performed in the same manner as in the previous case, the material being taken from the suppurating tubercle on the arm of W. R. The succeeding symptoms were pretty much the same as already described as in the first experiment.

On the 9th of March, (twenty-three days after,) the whole vesicated place was vividly red, the skin was hard and infiltrated with still firmer desquamating eminences. No pain.

March 21st. The local affection seemed to have arrived at its climax. There were numerous copper-colored grouped, partly confluent tuberculous eminences. Most of them were covered with brownish yellow and grayish white, tolerably adherent scabs and scales. At this juncture Dr. W. had to return home, and employed, therefore, the biniodide of mercury externally, without internal remedies, whereupon, after three weeks, every trace of the eruption had disappeared. From the middle of April to the beginning of May he felt completely well. Then, however, two and a half months after the inoculation, intense headache commenced, which became unbearable, followed by general debility, anorexia, sleeplessness, and change of appearance. Almost simultaneously with those symptoms a lenticular syphilide was observed at first at the back of the neck, whence it gradually extended over the scalp and face. Shortly after syphilitic sore throat commenced. The exudation connected therewith was but slight and superficial. In fine, broad, secreting condylomata sprang up on the usual places on the scrotum, inside of thigh and perineum, toward the anus.

Dr. W. with admirable coolness allowed all these symptoms to develope themselves for many weeks, and not before July he commenced treatment. The several affections soon receded, and on the 11th September Dr. Rinecher paid Dr. W. a visit, and found him completely restored.

THIRD EXPERIMENT.

On the 7th of March, matter from under the scabs of Dr. Warnery's arm was taken and inserted into the arm of a boy twelve years old, who was treated for chorea at the hospital. The results of the inoculation developed themselves pretty much in the same manner as in the other experiments. Local reaction appeared on the 27th day in the form of an indolent tubercle, covering almost the entire vesicated space. Its surface, first dry, soon became superficially eroded and secreting, and subsequently covered with laminated scabs. Without treatment of any kind, it had fallen off, and presented, on the 12th of May, a slightly depressed cicatrix. In this case it did not come to the development of constitutional symptoms.

Professor Rinecker, from his own, from Wallace's and Waller's experiments, draws the following conclusions:

1st. The local results from inoculation with secondary virus, appears never before a fortnight, often after four weeks. Prolonged inoculation is, therefore, characteristic of secondary infections.

2d. The primitive symptoms of inoculation remain for a long time, develope very slowly, and are still extant at the appearance of constitutional symptoms.

3d. The form in which the primitive symptoms develope is that of cutaneous tubercles, with a tendency to superficial ulcerations. The neighboring lymphatic glands become involved in most instances.

4th. The general symptoms commence scarcely ever before the fourth week, mostly at a later period, and after the first local reaction.

5th. The general symptoms indicate a total impregnation of the system, and affection of the constitution analagous to any affection with animal poison.

6th. The forms in which the general infection manifests itself, are themselves greatly diversified. They are onaculae, sometimes papulous, flat condylomata, sore throat, form of plaques mureux.

7th. The well-established fact that the contagion is reproduced in the general symptoms, and may be effectually inoculated upon individuals in whom the virus has either not yet been introduced, or whose disease has been effectually instigated by appropriate remedies.

Meanwhile, Baulland had brought the subject once more before the Imperial Academy of Medicine, and had insisted upon the appointment of a commission to prepare it in a tangible form for discussion and final decision.

But years passed by without a report from the committee. The subject might have rested in silence forever, but for Auzias Turenne, who succeeded in influencing the Minister of Public Instruction to submit the following questions to the Academy:

1st. Are the affections of constitutional syphilis contagious? And,

2d. Has the product of hereditary syphilis of infants, as regards its contagiousness, other qualities than constitutional syphilis of adults.

The request of a speedy answer from so high an authority could not be disregarded. Ricord's influence and position in the Academy had to yield to the authoritative demand.

The Academy promptly appointed a committee, with Gibert as chairman, who reported, on the 24th of May, the result of its investigation.

The report of Gibert begins by saying that the submitted questions had already been affirmatively answered by most practitioners. Hunter, and more recently others, had attempted, by means of inoculating syphilitic virus, to throw a doubt upon clinical observation. The new school had in toto, denied the contagiousness of constitutional syphilis; the adherents of its contagiousness had answered by clinical facts. Of late, however, Wallace, Waller, Rinecker, Velpeau, Vidal, Bouley, and others, had proved by the same means "that secondary syphilitic affections were transmissible upon individuals not yet affected."

He had questioned the necessity of instituting experiments of the same character in the face of facts so indisputable and so satisfactory to unbiassed minds, and, moreover he, (Gibert) had great aversion to inoculating healthy individuals. In consideration, however, of the obstinate and persistent denial of the opponents, he had felt himself forced to enter upon new experiments.

As had been expected, he had obtained the very same results, and arrived at the same conclusion as Rinecker, in 1852.

The difference between primary and secondary syphilis, whether acquired or inoculated, Gibert summed up as follows: in the former, quick incubation, pustular beginning, followed by ulceration and induration; in the latter, there was protracted incubation from eighteen to twenty and more days, papulous beginning, and subsequently ulcerative and crustaneous forms.

Next Gibert entered upon the details of his four experiments which he had instituted, together with Auzias Turenne, under the supervision of the members of the committee.

One case was so far remarkable, as the inoculation had produced but a single scab, and had, consequently not the remotest resemblance to a Hunterian chancre, as insisted on by Ricord and Rollet.

With regard to the second question, Gibert thought he had answered it already in answering the first. Clinical facts were as numerous and conclusive as in adults. Many practitioners had recorded observations of transmission of the disease from sucklings upon wet-nurses, and its extension upon others. There was no reason to suppose that the virus followed other laws of communication, or was more or less intense than in adults. And, finally, M. Gibert proposed to return the following answers upon the ministerial questions:

1st. There are symptoms of secondary syphilis which are undeniably contagious.

2d. This is true, also, with reference to constitutional syphilis of infants upon wet-nurses, and there is no reason to presume that the disease possesses a different character in infants from that in adults.

This proposition was approved of by the Academy, after a short debate.

The discussion was opened by Ricord himself, who had been a member of the committee, but had preferred to present a special report, to signing that of the chairman. The former contained, however, but repetitions of his well-known views, and was intended to throw new doubts upon the subject. He stated, as a special plea, that he had instituted the inoculation upon patients only who had been already affected with the disease. According to his clinical observation in a most extensive practice, he had been almost always able to trace the syphilitic affection to a primary chancre, and in those few cases in which this had not been directly possible, good and rational reasons had existed for presuming such an origin. He would not deny that he had taught the transmissibility of secondary syphilis upon patients already invaded by that disease; yet in regard to its communicability upon healthy individuals, he had expressed himself with great reservation.

Toward the end of the debate, in which the most prominent members of the Academy participated, Ricord, himself, admitted the conclusiveness of the facts stated, inoculations of secondary syphilis, and thus the question was finally settled.

Your committee has purposely given this historical sketch in order to show that the question has been discussed for the last twenty years, and has been answered in the affirmative by conclusive clinical observations and experiments. The parties engaged in the elaboration of the subject unite the highest reliability and respectability.

Their position is unassailable, and can scarcely be rendered stronger by new experiments or further investigation.

Your committee might have simply reported to the society, and referred to the proper literary sources, and asked for their discharge; but the circumstance that the inquiry on this subject has chiefly been carried on in France and Germany, and its results published in foreign languages not accessible to every member of the society, and furthermore that English and American literature had almost entirely lost sight of the final settlement of a question so important to hygiene, forensic and practical medicine, these considerations have induced your committee to collect material bearing upon the subject.

In conclusion, your committee considers itself fully sustained by clinical and experimentative facts, to report, in answer to the question which has been submitted to them:

"That secondary syphilis is both communicable *by contact and by inoculation.*"—*Medical and Surgical Reporter.*

Letter from David P. Smith, M. D.

LONDON, February, 15, 1861.

MR. SKEY lectured to-day upon sudden retention of urine occurring in a young child, and also upon the diagnosis and treatment of enlarged prostate. Supposing a healthy child to be suddenly unable to void its urine, he said it could arise only from one thing, impaction of a small stone in the uthera. I suppose he considered the sudden retention you sometimes have from the irritation of worms in the rectum, and also, as in one instance occurring in my own practice, the obstinate retention from fright, as examples of retention occurring in unhealthy children. The case I allude to as occurring from fright was that of a little girl five years of age, who, on being told that rats would bite her if she went to the privy, stayed away for a long time, and for about twelve days or a fortnight would retain her urine for eighteen or twenty hours, although suffering the greatest agony, in spite of all persuasions to the contrary. Finally, giving her opium and taking her out to ride, and in other ways distracting attention, sufficed to dispel the horrid images her mind had invoked, and when that was done her recovery was immediate. Might not some fright stop incontinence as well? Mr. Skey, passing over these nervous cases, said, that an impacted calculus must be the cause of sudden retention in a child, and recommended, after feeling it from the perineum, to cut down and remove it. He said that although attempts had been made to remove it, he had almost never known such attempts succeed. In the course of a long experience and with every imaginable instrument, he had found the extraction of fragments remaining after lithotripsy very rarely succeed. It was spoken of as practicable, but he had very rarely, indeed, accomplished it.

Feb. 16.—A surgeon could hardly visit London without going to see one so famous as Mr. Fergusson. To-day I saw him perform an operation for ruptured perineum, and one also for cleft palate. He pared the edges of the ruptured perineum very deeply indeed, so much so that three ligatures were applied to as many arteries. Three silver sutures were made to include much tissue by very large, seemingly clumsy needles, set in large rough handles, which gave perfect command over the points. Then the patient with cleft palate was brought in, and the operation initiated by the cuts made for the division of the palatal muscles. Then, of course, the edges of the cleft were pared, and silver sutures applied by means of the prior introduction of silk ligatures. The ordinary nævus needles were used. Copious hemorrhage occurred during this operation, and certainly very serious wounds were made in the palatal tissues.

Having performed this operation in a good many cases, and having succeeded under very unpromising circumstances with division of the muscles, I may perhaps be allowed to question the propriety of Mr. Fergusson's procedure. May not his success depend upon his great care in the adaptation of the edges, and his adroitness in the introduction of the sutures, rather than upon the supposed muscular divisions? From my experience in ten operations, I am led to choose integrity of tissue, even plus contractility, rather than tissue wounded and irritated, though it may be perfectly passive.

PARIS, March, 4, 1861.

This morning at eight o'clock I took the omnibus out to Laraboisierie, the hospital rendered famous by Chassaignac. About forty students followed him around the wards. I saw a great variety of abscesses in every possible situation, all with from one to four of his drainage tubes traversing them. I saw one running through a scrofulous wrist joint, and one between the second and third metacarpal bones, to drain a palmar abscess. A solution of nitrate of silver was applied to every sore with great impartiality. After the visit to the wards we repaired to the operating theatre, and witnessed the following operations:—1. Puncture of a simple abscess in the neck, and introduction of a drainage tube. 2. Removal of a large hemorrhoid by the ecraseur. The chain was tightened at intervals of from fifteen to thirty seconds. 3. Removal of a tonsil by the quillotine. 4. Incision required in fistula in ano made by ecraseur. Here the chain was tightened every ten seconds. 5. Puncture of a hydrocele by a trocar, which made a double puncture, so as to allow of a drainage tube being introduced through which the serum was evacuated. The drainage tube was then withdrawn, having been dragged into the operation for no useful purpose; somewhat like the large hole through the door for the cat, and a small one for the kitten.

Chassaignac makes use of trocars about a foot and a half long; why, I know not, unless he has it in contemplation to put a drainage tube through some of the vital organs. He operates in all cases of cancer, and of course claims cures. A case was shown to-day of cancer involving all the tissues at the base of the tongue, upon which he proposes to operate. A boy was shown us in very good health, upon whom four months previously amputation at the hip-joint was performed for cancerous disease.

At half-past twelve o'clock I went to Dr. Sichel's clinique, where I saw a great number of cases of diseases of the eye. It is a most excellent place for study, for certainly almost, if not quite, every form of eye disease was shown. Every facility is afforded to students, on the payment of a small fee, for the examination of these cases.

March 9.—To-day I visited the wards of the famous Civiale at the Neckar. He shows his age, but is yet very active. It was certainly very instructive to see the great tenderness and dexterity with which he passed bougies through close strictures. In several cases of tight strictures he used an instrument for internal incision, so fashioned as to cut from behind forward after having been passed beyond the strait place. He remarked that the process was devoid of danger, and much shortened the duration of treatment. After incision, a gum-elastic catheter is introduced, and retained twenty-four hours, and after that a metallic bougie is passed every morning. He remarked upon the great frequency of hypospadias to a slight degree.

I also went into a part of the Neckar devoted to children, and to my mind they afford one of the most interesting fields of observation in Paris. Scrofulous disease of the joints seemed very frequent among them.

A few days since I visited La Pitie to see Maisonneuve, who ranks here very high as a bold and dexterous surgeon. Report has it that he thinks it is time enough to look for an artery after he has cut it, and that charpie plugs up many a wounded vessel in his wards. In following him about, I was particularly struck with his plaster of Paris splints. They are made by saturating a piece of cloth, or lint, with quite a thick solution of the plaster in water, and then doubling the cloth upon itself as many times as is requisite to obtain the required strength, and applying it closely to the limb with a roller bandage. M. Maisonneuve said that it "set" before he reached the end of the ward, thus forming almost instantaneously a firm stiff shell for the limb, perfectly adapted to all the inequalities of surface. I took pains to see many of these splints removed, and noticed particularly that there was not a sign of unequal pressure to be seen around the joints or elsewhere. Two or three of these splints were freshly applied by M. Maisonneuve, with certainly much more facility than pertains to the starch bandage. A man was dying in one of the beds who had suffered amputation for gangrene of the lower limb. M. Maisonneuve regretted that he had not made the flaps by the temporary ligature instead of by the knife, saying he had found that method less fatal. Adjourning to the [dead] house M. Maisonneuve demonstrated to us upon the cadaver the merits of his instrument for internal division of stricture of the urethra, showing that it cut the strictured part and nothing more, while all the other instruments invented for this purpose are in truth scarificators. First, a gum-elastic bougie is insinuated through the stricture, then a slender grooved staff is screwed on to the end of it and pushed along through the stricture, the bougie, in the meantime, coiling up in the bladder. Now, the staff traversing the stricture, a delicate, long-handled, chisel-shaped, probe-pointed knife is slid down the groove, the probe preventing the division of any tissue until its chisel point comes against the stricture, which is immediately cut through. The moment the whole straitness is divided the knife ceases to cut, and may be run into the bladder without harm.—*American Medical Times.*

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COUNT CAVOUR AND HIS PHYSICIANS. –The enemies of Italy must erect a statue to Sangrado. But it is difficult for us to read the accounts transmitted to us of the disease and treatment of Count Cavour with patience. Surely the Papal and Austrian authorities will decree a mural crown to the three physicians who caused the illustrious Cavour to be bled thrice on the first day of his illness, twice on the second, and a sixth time on the third; and when finally he was at the last point of weakness, and beyond the possibility of venesection, placed his bloodless and enfeebled frame in a hot bath, and swathed him in mustard plasters. The combination of fever, repeated loss of blood, heat of weather, hot baths and mustard poultices, was, indeed, more difficult to sustain than any burden of diplomatic anxiety; and all Europe feels with indignation that a life which could ill be spared has been sacrificed to the antiquated prejudices of the Italian physicians, who still brandish so recklessly the ancient ensign of surgery. We must not be unjust to those who undertook the grave charge of this great life, in which the liberties of Italy also lived, and we would not aggravate the grief and the pain which the unhappy event of their treatment must inflict. We may set down much of the alleged vacillation in determinating the nature of the disease to the restless falsity of rumor, which is fertile in variations. The diagnosis seems to have been pretty clear from the first. The prior symptoms were febrile, and accompanied with cerebral congestion. The physicians ordered six bleedings, and at the end of these, on the second day, the symptoms were already announced in the bulletins to be "typhoid"—that is, weak and asthenic. The true origin of the fever was now clearly seen, for there were marked ascesses and remissions of fever at stated intervals. The accesses were preceded by shivering fits, and the attack was declared to be double tertian ague. The loss of blood produced delirium in the periods of accession; nevertheless, the bleedings were continued up to the seventh time, the physicians apparently taking fresh courage at each natural remission or the fever; and, finally, on the last day, we read that a hot bath was ordered, to produce a weakening effect (*affaiblissement*), because they dared no longer bleed. The surface was now cold, and so mustard plasters were applied. Thus was this great Minister tortured, and brought surely within thn clutches of death. Seneca choose to seek death by opening his veins in a warm bath, and there quietly allowing his life to ebb away. The substitution of seven successive bleedings, *ad delinquium*, with the intercurrent application of mustard plasters and cabinet councils, to conclude with the hot bath and more mustard plasters, seems to us to be a more cruel, but hardly a less sure device.—*London Lancet.*

From the Army Sanitary Commission.

Rev. Dr. Bellows, President of the Commission, has recently visited the Western camps. He has seen twenty thousand troops, and inspected twenty hospitals. At Cairo he found five thousand Illinois troops, with two regiments at Bird's Point, and several companies above Cairo, on the west bank of the Ohio. The health there is good, and only two hundred and fifty men in the hospital. The change to the Ohio water has produced diarrhœa, but the soldiers become used to it in a short time. There are several large ice-houses there, which are a source of much comfort. At Cairo a large fortress will probably be erected. The place is defended on three sides by a levee, resisting the inundations of the two rivers. The inclosed space will probably be filled up to the embankments. It is neither damp, muddy, nor unhealthy there at present. It is said that the malaria from the swamps does not produce fever and ague on those living in the immediate vicinity, but rather on persons living on the high lands at some distance. The medical force at the camp was good, but there was a want of female nurses. The camp police was bad. There was carelessness in the use of sinks, and room for improvement in the culinary operations, and in establishing regular hours for meals. The men are able bodied, well-conducted, comfortably clothed, properly equipped and contented; have good barracks, and are the best men from all professions and trades of the West. They are all enlisted for three years.

At Alton, Dr. Bellows found the camp well situated and thoroughly drained. There are four regiments here, all enlisted for three years. The health is good. The water might be better, but it is not very bad.

At Camp Pope are encamped four regiments, healthy, temperate and well-disciplined.

In all the Western camps the men were of excellent character. The chaplains were good, earnest men. Some reforms are required and will be made. Other camps, including those in the vicinity of Washington, have been visited by the commission, and last week they met at Washington to submit their reports to the Government. —*Medical and Surgical Reporter.*

Bronze Skin from Fatty Liver.

At a meeting of the New York Pathological Society, on the 8th of May, Dr. Clark presented a supra-renal capsule, which had been removed from a person who before her death was as markedly bronzed as any person he had seen; a bronzing so much like Addison's disease that he at least had no means of distinguishing between the two. The following history of the case was furnished by the house physician:

Rose Hughes, married, aged 40, a native of Ireland, was admitted to the Bellevue Hospital, April 9th, 1861. She stated that she had been sick for some four or five months, having been first taken with a chill, and then wandering pains throughout the body. She was able to be up and about, however, until about a month previous, when being unable to pay her rent, the landlord turned her out of her room, and she slept for three weeks on the landing at the head of the stairs, by which she took cold, as her feet swelled considerably. She had some cough now, but had some months previously spit blood for about a week. This was all that could be gained from her, and it should be stated that she was so weak, and seemed so to wander, that implicit reliance cannot be placed upon her statements.

On examination her skin was observed to be much bronzed, and she stated that it had not always been so, but could not tell when she first noticed it. Well marked signs of phthisis were discovered in both lungs, and there was suspicion of pneumonia in the left lung. She was ordered beef tea and some stimulus. She continued for two days without change, but on the third, five or ten minutes after we had made our morning visit to the ward, but had noticed no change, we were summoned to her, and told she was dying. On reaching the ward we found that she had been assisted to the water closet, but on reaching it, had fallen prostrate, and had to be carried back to the bed. We found her rather wild, trying to sit up in bed, refusing to take anything, and calling for the priest. We attempted to give her some stimulus, but she would take nothing, calling for the priest, and as he arrived at once, we requested him to make her take something, which he did, but to no purpose, as she died in about fifteen minutes.

Post-mortem, fifteen hours after death. Body much emaciated. Head not examined. The bronze color extended to the knees, with the exception of a small spot on each side. From the knees to the ankles it was absent, but appeared again on the feet. The lungs were firmly bound down by old adhesions: in the apex of the left was a large tuberculous cavity, and the lung was infiltrated with tubercles: there was also some pneumonia in the lower lobe. The right lung also contained tubercles. The liver was large and fatty, weighing seven pounds. The kidneys were natural in appearance, and there was no disease of the suprarenal capsules.

I had no hesitation in saying that this was a case of tuberculous disease of the suprarenal capsules, and I was very much surprised when it was found that there was none. Then came the question, what produced this peculiar color? On examining the liver it was found to be the seat of fatty degeneration, and the enlargement of such a character as to give place to the kidneys of both sides, by forming deep sulci. The upshot of the case is, that it must be considered as an instance of ephilis hepatica, consequent probably upon this disease of the liver.—*American Medical Times.*

* * *

It is gratifying to notice the fact that the introduction of female nurses into our military hospitals is very favorably reported. A corps of nurses recently arrived at Camp Defiance, Cairo, Ill., under the direction of Mrs. Yates, "Matron of the Illinois Military Hospitals," who has been accepted by Miss Dix, on the part of the Government, and authorized to exercise full powers in the management of the nursing. A correspondent of a city paper says: "Its beneficent effects are already seen; men, at best, are out of place in the sick room; but women are nurses by instinct. The dull eyes of the hospital invalids brighten at their approach, and voices grow husky in attempting to express their gratitude. One poor fellow a private in the Ninth Regiment, who died of typhoid fever this morning, gratefully recognized his nurse, almost at the last moment, long after he had ceased to notice any one else. * * This tender care for the soldier is one redeeming feature of modern war." This will be acknowledged as a truthful compliment to women, as nurses, by every one who is familiar with hospital practice.—*American Medical Times.*

The New Sanitary Commission for the Army.

WITHIN the past few weeks a sanitary commission, consisting of Henry W. Bellows, of New York, President; Professor A. D. Bache, of Washington, Vice-President; Elisha Harris, M. D., of New York, Corresponding Secretary; Geo. W. Cullum, U. S. A., Washington; Wm. H. Van Buren, M. D., New York; Wolcott Gibbs, M. D., New York; Samuel G. Howe, M. D., Boston; Cornelius R. Agnew, M. D., New York; J. S. Newberry, M. D., Cleveland; George T. Strong, New York; and Frederick Law Olmsted, New York, has been organized at Washington, D. C. The commission was appointed by the War Department, on the suggestion of the Medical Bureau at that city, and has the cordial co-operation and support of the Government. Rooms are assigned for its use in the Treasury Building. It "is vested with full authority by the Surgeon-General of the Army to inspect and examine all posts, camps, and hospitals, and holds the order of the Secretary of War that all persons in the employ of the Government respect and further the inquiries and objects of the commission to the utmost of their ability." The objects proposed to be accomplished are "to devise and thoroughly execute such sanitary regulations as will tend to economise the lives of the soldiers, and save the nation more men, money and time than could be effected by any improvement in the arms put into their hands." To effect this object, at once so commendable and so desirable, the commission propose to initiate a systematic plan by which the army shall be supplied with food properly cooked, with properly purified water—two items, the want of which is equivalent to a difference of at least forty per cent. of its available strength, in a period of three months. "The clothing supplied the volunteer regiments, their tents, huts and quarters, their hospitals, their supply of nurses, the purity of the medicines supplied, the general sanitary regulations, (as to ventilation of tents and quarters, for instance, drainage of camp sites, the use of disinfectants, bathing and personal cleanliness,) to be enforced as a part of our military system;—precautions against disease to be adopted in particular localities," are also subjects which come within the range of investigation and action proposed by the commission.

The commission have thus laid out for themselves a work, vast in magnitude and in importance, and if fully executed in accordance with their design, "will save," in their opinion, "at least 20,000 out of every 100,000 men raised for the war from perishing uselessly, ingloriously and unnecessarily, from the mere want of systematic precautions which ought to be provided against the perils of exposure and disease."

In prosecuting the stupendous work marked out, the "members of the commission gladly serve without fee or reward," and appeal with perfect confidence to the liberality of their fellow-citizens for the funds necessary to enable them to execute what they had undertaken. Permanent salaried agents must be employed in Washington and other great military centres. Expenses of travelling, printing, and transportation must be paid. To meet these outlays, donations and subscriptions are earnestly solicited, and should be addressed to its treasurer, George T. Strong, 80 Wall street, New York.

The commission, thus organized, commends itself to the sympathies and to the earnest co-operation of all the benevolent and humane. The most incalculable good must result from its action, not only to the army itself, but also to the profession and the world, as its deliberations and conclusions will no doubt be hereafter published.—*Medical and Surgical Reporter.*

Amenorrhœa Connected with an Undersized Uterus.

Dr. Simpson, in a "Lecture on Amenorrhœa: its Local Treatment," published in the *Medical Times and Gazette* gives the history of a case and its treatment as follows:

"The patient was the sister of a doctor, and had been under the care of various medical men at different times, had from puberty suffered from amenorrhœa, and its attendant evils, more especially from asthma, recurring every month, and lasting for several days, and interfering sadly with her health and happiness. She had never once menstruated regularly, the uterus being slightly undersized. She had taken quantities of medicine of every possible kind, had been repeatedly leeched, and had been subjec ed to many different local applications, sometimes with some little relief to her symptoms, but never with any result at all approaching to a cure. Believing that in such a case all hope of radical cure was vain, except through measures directed to the uterus itself, I persevered for a time in the application of nitrate of silver to the lining membrane of its cavity, in the manner I have described to you; and the operation was always attended with more complete and lasting relief than the patient had ever before experienced. This treatment was for many months persevered in; but, both she and I having become tired at last of imperfect and transient results, I had recourse to the introduction of a small metallic pessary into the uterine cavity. In the case of the lady of whom I now speak, the introduction of this instrument was followed by the speedy relief of all her more urgent symptoms, and particularly of her monthly fit of asthma, and after she had worn it for some weeks, she was equally astonished and delighted to find, at the recurrence of her next period, a free menstrual discharge, instead of the dreaded apnœa with which she had been so long afflicted. She continued to wear it for ten or twelve months, until her health became so far restored that she was able to go to a ball—a kind of amusement in which she had never before been qualified to indulge. When the discharge appeared to have become fairly established, the instrument was at last removed; and for some months the patient continued to enjoy good general health. On the recurrence of cold weather, however, the uterus again failed to perform its function, and instead of having the proper menstrual discharge, she was attacked with one of her old fits of asthma. At her own suggestion and urgent solicitation I again introduced the galvanic pessary; and she wore it for about three years altogether, without ever experiencing from it any kind of inconvenience. The uterus during that time performed its functions painlessly and regularly; the secondary symptoms were all kept in abeyance; and it was only at length finally removed when the uterus was found to be equal to the performance of its functions without the presence of any irritant in its interior. The same good effects which were here produced, I have seen resulting from the use of the intra-uterine bougie or pessary in various similar cases."—*Medical and Surgical Reporter.*

The following statement, from the Cairo Camp Register, shows the amount of sickness at that place to be quite large. Since the 25th of April, 772 soldiers have entered the army hospital, and have been treated for the following diseases: Diarrhœa, 103; bilious fever, 27; rheumatism, 7; pneunomia, 9; fever and ague 19; dysentery, 115; gun-shot wounds, 3; pleuro-pneumonia, 11; intermittent fever, 17; miscellaneous, 461.—*Ib.*

Duties of the Army Surgeon---Females not Suitable for Nurses.

A correspondent, under the signature of "S. G." writes as follows to the *American Medical Times:*

Sir: It is not enough for the surgeon merely to attend to cases of illness when called upon. He should keep an eye to the clothing, bedding, cleanliness, and food of the men. He should keep a general supervision over their sanitary condition; and this, with proper tact, can be done without interference with the duties of the "line" officers, or setting in antagonism the jealousy of command among them.

Medical officers are not compelled to attend the civil employes of the army, such as quarter-masters' men, &c., but cases frequently arise when such services ought to be cheerfully rendered.

The subject of the diet of the soldiers requires the grave, united and prompt action of all the medical men of the country. The disgraceful frequency of scurvy in the United States Army, lately commented upon in the editorials of the *Medical Times*, is a subject of national importance. Such a state of things should not exist.

Our women appear to have become almost wild on the subject of hospital nursing. We honor them for their sympathy and humanity. Nevertheless, a man who has had experience with women nurses among male surgical cases, cannot shut his eyes to the fact that they, with the best intentions in the world, are frequently a useless annoyance. Cases are continually occurring in male surgical wards of such a character as require strong arms, and attentions which any reasonable medical man is loth to exact from female nurses. Imagine a delicate refined woman assisting a rough soldier to the close-stool, or supplying him with a bed-pan, or adjusting the knots of a T-bandage employed in retaining a catheter in position, or a dozen offices of a like character which one would hesitate long before asking a female nurse to perform, but which are frequently and continually necessary in a military hospital. Besides this, women, as a rule, have not the physical strength necessary. For example: a man having gunshot wounds of grave severity affecting the lower extremities, with perhaps incontinence of urine, or diarrhœa, would not improbably be attacked with bed-sores if not kept scruplulously clean. Should the soft part of the back begin to ulcerate, local attention becomes doubly necessary. The patient, under these circumstances, require often to be lifted up carefully, and bodily, so as not to alter the comparative position of his limbs to the body. To do this properly, at least four strong men are required, who, stationed two at the shoulder and two at the hips (one hand from each lower assistant steadying the thigh and leg of that side), can thus raise the man steadily and carefully. A fifth would not be out of place in supporting the feet, while the medical attendant washes the excoriated parts, applies the needed dressings, and throws upon the surface of the bed a clean sheet.

Women, in our humble opinion, are utterly and decidedly unfit for such service. They can be used, however, as the regular administrators of the prescribed medicines, and in delicate soothing attentions which are always so grateful to those who are suffering and sick, and which at the same time none know so well how to give, as do noble, sensible, tender-hearted women.

But, as hospital nurses for wounded men, they are by nature, education and strength totally unfitted, that is, when we consider *all the duties* surgical nurses are called upon to perform. In conclusion, it may be well to state that a surgeon on duty with troops, by showing proper interest in the men, without allowing himself to be humbugged by them, will gain their affection as well as respect.

ARMY SURGEONS IN THE FIELD.—From a recent statement we learn that, from the beginning of the Indian Mutiny until the fall of Lucknow, the number of surgeons and assistant-surgeons killed and wounded in action was seventeen. There were killed in Lucknow alone, two; wounded severely, two; total four. Killed at Jhansi, one; severely wounded, one; both in the same regiment. Of the Arrah party, after the other two officers were killed, Assistant-Surgeon Clarke, of the Thirty-fifth Regiment, commanded until he was himself mortally wounded. It was Surgeon Hone (Victoria Cross,) of the Ninetieth Regiment, who commanded a party of doolies when cut off from the columns at Lucknow; and it was Assistant-Surgeon Wilson, of the Seventh Regiment, who saved the life of the Duke of Cambridge, at Inkermann. It is, then, fairly asked, why are not army surgeons equally rewarded with other officers, since they are equally exposed? Why should there be no brevet, which is at least harmless in its operation? There was one in the late Company's service at last, and we concur in the regret that it is not still in force.—*Lancet.*

CHLOROFORM—EFFECT OF, ON THE CONSTITUTION.—Mr. A. E. Sansom, M. B., London, (*Lancet*, June, 1861,) says:

The circulation in the web of a frog's foot, as seen by the aid of a microscope, is thus modified by anæsthetising the frog by the vapor of chloroform:

1. Increase of velocity of circulation.
2. Dilatation of arteries and capillaries.
3. Decrease of velocity of circulation.
4. Alteration of cell-walls of corpuscles; coherence.
5. Interruption by cohering masses to capillary circulation.
6. Statis of the blood.

The enlarged capacity of the arterial system and the decrease of the velocity of the circulation accounted for the anæmia of the brain observed during narcotism.—*American Journal of Medicat Science.*

EFFECT OF MUSIC ON THE SICK.—The effect of music upon the sick has been scarcely at all noticed. In fact, its expensiveness, as it is now, makes any general application of it out of the question. I will only remark here, that wind instruments, including the human voice, and stringed instruments capable of continuous sounds, have generally a beneficial effect—while a piano-forte, with such instruments as have no continuity of sound, have just the reverse. The finest piano-forte playing will damage the sick, while an air like "Home, sweet Home," or "Assisa el pie d'un salice," on the most ordinary grinding organ, will sensibly soothe them—and this is quite independent of association.—*Florence Nightingale.*

Fortress Monroe.

THE following correspondence, to the *American Medical Times*, under date July 12th, 1861, is from Charles B. White, M. D., Assistant-Surgeon U.S.A., late House Physician to Bellevue, New York:

This division of the army has been highly favored, from a medical standpoint, as to its hygienic location, and besides from the fact of its having so so excellent and so experienced a medical head, in Dr. John M. Cuyler, the senior surgeon and Medical Director of the Department of Eastern Virginia.

The forces encamped in the Fort and its vicinity, amounting to about twelve thousand men, have been very generally healthy, with the exception of the usual diarrhœa, to be expected from a change of climate and partial change of diet, added in some cases to the effects of a sea voyage.

The First Regiment Vermont Volunteers were unfortunate; while on their passage hither the measles began to prevail, and after arrival the disease spread rapidly among them. This occurred about the middle of May. This invasion of rubeola gave rise to the ridiculous rumors of the prevalence of small-pox among our troops. There have been no authenticated cases of variola in this division of the army. Dr. Eisenlord, of the Seventh New York Volunteers, (Col. Bendix), had two cases about June 20th, which he at first thought to be varioloid. The First Regiment Vermont Volunteers had, during the last month, 121 cases of measles alone; all but two of which, however, convalesced satisfactorily. These two lapsed into a typhoid condition and died.

Aside from the ordinary acclimating diarrhœa and dysentery, the following have been the leading diseases, as shown by the condensed report of the whole division for the month of June, 1861:—Incised, contused and lacerated wounds, 100; gunshot wounds, 37; rubeola, 121; rheumatismus acuta and chronica, 156; constipatio, 152; colica, 85; bronchitis, 88; gonorrhœa, 91; cholera morbus, 74; malarial fevers, 68; other fevers, 46. Making the total sick, otherwise than from diarrhœa and dysentery, 2,034. The health of the division is good now, there being but 518 on the sick report in all. The U. S. General Hospital, under the care of Dr. Cuyler, is in good working condition; there is everything prepared for a much greater number than are at present treated there (viz. 120). It will easily accommodate 300 to 400 patients. This hospital is situated in the famous Hygeia Hotel building. The hotel has often accommodated in the summer season as many as 600 guests. On May 25th, Dr. Cuyler took the building, and at once commenced the organization of a new hospital. It had been occupied by troops and was very dirty, but speedily under the hands of a large gang of "contrabands" it was made a very clean and commodious hospital. At that early period we were much embarrassed by the lack of hospital furniture to supply our need, till the ample supplies then on their way, sent by Government, should arrive; but we were enabled to hire sheets, &c., &c., from the hotels, temporarily. At the time of the Great Bethel affair, the hospital was in full supply and operation (10th June, 1861). The wounded were brought in hospital wagons, and Dr. Cuyler operated where required and dressed the wounds, assisted by Drs. J. S. Smith and C. B. White, U. S. A., Dr. R. B. McKay of Pennsylvania, Volunteer Surgeon, and by Drs. Hoff, Gilbert and others, of the regimental surgeons. From the Big Bethel action we had brought in twenty cases of gunshot wounds, and about five bayonet and incised wounds.

Of the gunshot wounds one survived only a few hours, the ball entered the abdomen, perforated the bladder, and lodged in the pelvis; one shot through the chest died at nine P. M. of the 10th; another shot through the body, died ten days after of secondary hemorrhage.

There were also two cases of great interest, being gunshot wounds of the thighs, and fracture of the femur, one through its middle, the other just below the hip-joint. On consultation, it was decided not to amputate. The first (James Garbutt, of the Third N. Y.) is doing admirably. Union of the femur is becoming firm, treated by extension and fenestrated splin's; now has on Buck's apparatus. The other, where the trochanter was shattered, is doing well. We expect to save him. He is certainly as well as he would have been if amputation had been performed at the hip-joint. The following case is of interest: C. Gauth, Seventh New York Volunteers, had a superficial gunshot wound of the epigastrium and left hypochondrium, evidently producing concussion of the subjacent parts, as he has been deeply jaundiced; he had vomited, and has been very feeble. He is now slowly improving. There were four amputations performed within a few days of the action, (two immediate) three of the fore arm and one of the arm; all doing well.

There have been seventeen cases of gunshot wounds, received in skirmishes and by accidents. Of these only one died, G. S. Gillies, Tenth Regiment New York Volunteers. Shot in the abdomen, when on picket guard, on June 15th, by the mistake of a comrade. He died thirteen hours after.

The following summary may be useful: Gunshot wounds, 37, of whom 14 died; fractures, 7; dislocations, 3; incised, contused and lacerated wounds, 100. In the Fort Monroe Garrison Hospital we have had three incised and punctured wounds from civil practice. And of military surgery, a sailor of the Harriet Lane, calf of leg badly torn by splinters, recovered so as to be sent to his ship almost well; about June the 28th, the quartermaster of the Monticello, Mr. Peterson, shot in the abdomen (in the Rappohannock river affair), survived only thirty hours. Dr. Heber Smith, the surgeon of the Monticello, shot through the face and the right hand, I attended upon at my own quarters in the Fort, since gone home on leave, having recovered to a great degree.

This department is now well supplied with ambulances. These are of various contrivance for the comfort of the wounded, as regards interior fixtures. They are of two kinds, the light two-wheeled, for short excursions and field use in gathering up the wounded and carrying them short distances; and the large four-wheeled ambulance, with seats for those able to sit up, and mattrasses for the badly wounded to lie down, racks for muskets, knapsacks, &c. One or more of these go twice daily to the various camps to bring in sick and wounded to the hospitals, and carrying out medical stores and convalescent men. These are admirable; use proves them to be most comfortable even for very painfully wounded.

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PRESENTATION TO A SURGEON.—The friends of Surgeon John Thoburn, of the First Virginia Regiment, presented him with a hat, belt, and sword, on his leaving his home in Wheeling, Va., to join his command.

IT is said that all ointments used for the cure of psora owe their curative properties entirely to the lard. If this be true, the combinations of sulphur, mercury, &c , which are so often objected to, may be dispensed with.

Communications.

Dr. Staub's Reply to Dr. Depierris.

Mr. Editor:—Dr. Depierris, of this city, publishes in the *Echo du Pacifique* three columns of explanations about the death of Mr. Simunowich, who passed from relative health to death perhaps an hour after thirty-nine ounces of blood were abstracted from him by the learned doctor. Dr. Depierris says he owes the explanation to the *public*, to *truth*, and to *science*.

We do not care about his endeavor to throw dust in the eyes of the public at large, by uttering falsehoods, phrases and cheap nonsense the public is unable to judge about. That his statements so far as the post-mortem is concerned are not true, a card in the same paper, signed by all physicians witnessing the post-mortem, will have shown you; this was also made clear at the Coroner's inquest, where the Doctor himself testified to the same point as the other witnesses, and where he was handled by his colleagues unanimously, fair and softly.

Therefore, I undertake to attend here only to the Doctor's scientific pretensions, and to expose him to the profession as he deserves, by pulling the borrowed lion's skin off his ears. I may truly say, after I had read through the three columns, I did not know whether I was more astonished at the ignorance displayed, or the impudence and self-sufficiency with which the Doctor brings forth his "dry-as-dust."

Though we did not see and do not care for the Doctor's diploma, (we know from former times he is ever ready to show it on similar fatal occasions,) we will leave him the *gloire* of having been once a graduate of Montpellier. We are satisfied that he has practiced medicine according to his understanding and knowledge, after his own peculiar and satisfactory manner, during the thirty years that have since elapsed; though, we dare say, the faculty of Montpellier will not subscribe to his explanations, neither will it be very proud of a pupil who plainly has learned nothing more since he quitted the lecture-rooms. The Doctor's *naivete* is really amusing, if he thinks a piece of paper will cover ignorance, and errors thirty years old will become truths. The science of medicine at the time the Doctor got his diploma was very different from what it is now-a-days, as may be easily understood, if we consider the amount of new physiological and pathological facts come to light since then; but from a man who is egotistic enough to say of himself before the public, "My name is known over the old world as a scientific one," we ask that he keep up with the progress of science. A doctor of thirty years ago, should he have learned nothing since then, will be unable to undergo an examination of a two-years student of to-day.

The Doctors diagnosis of the case was (in medical terms) "general plethora" (besides that abominable hepatization of the lungs) of two years standing. Treatment—Thirty-nine ounces of blood taken from the arm.

We do not intend to dispute the correctness of the diagnosis, although two other physicians, one of whom attended the defunct over six months, differ widely from that of our learned friend. To use the Doctor's own words, the disease of deceased was fullness of the blood, hepatization of the lungs, *ettouffe par sang* (suffocated by blood)—happily that he was.

According to the Doctor, this disease is very common here; and mark you, ignorant readers, why! Because the winds and heat evaporate the fluid of the blood and make it hyperinotic (full of fibrin)! Happy land of Andral and Gavarret! lament this son of thine! Similar words of plethora were used formerly a little chaotically, and only since the chemical pathology of the blood exists, and since medical science became more a reality, authors take care to use such names very sparingly—there are many refusing to acknowledge such a possibility. But all pathologists now-a-days agree that general plethora by itself is not yet a pathologcal phenomenon; though, if some impulse is given, it may be subservient to pathological processes, to active or passive congestions, to some circumscribed part. How mere plethora, without local lesions, causes apoplexy, or even aneurysma, or suffocates a man, we are very curious to learn from the Doctor—but it would suit us perhaps better to cover with Christian charity these, his little weaknesses in pathological anatomy.

Opinions differ how to treat congestive or even inflammatory processes in plethoric subjects (the Doctor owes us yet the demonstration that something of that kind existed in his case). Some of our present heroes in medicine are yet for bleeding as a palliative (not a curative) remedy. It is demonstrated that sooner or later after the abstraction of some reasonable quantity of blood, the loss is substituted either entirely, or (as is more often the case) the fluid is soon restored, but its quality changed—serous plethora ensuing. Vogel, one of the latest writers on the subject, (Virchow's General Pathology, vol. 1, p. 419,) lays down the following rules for blood-letting in such cases —he says: "In young individuals, in recent cases, especially if plethora developed itself quickly, we ought not to spare the blood; such persons mostly stand well a bleeding of one to two pounds. Quite differently is it if plethora is already deeply rooted; if it has become already habitual and constitutional, such persons, especially the asthenic and hœmorrhoidal ones, (Mr. Simonowich suffered with hœmorrhoids,) should they besides be advanced already in years, do not stand such a large bleeding, and easily collapse by it; we may be content in such cases with a bleeding of four, six, nay, even two ounces; and the more so as experience teaches us that even this quantity of blood detracted is sufficient to have the desired palliative effect." So much about blood-letting and the Doctor's assurance that thirty-nine ounces is a moderate bleeding.

The most of modern authors reject bleeding especially in inflammations and hepatizations of the lungs; and it would benefit the Doctor, and more yet his patients, greatly to go to Mr. Roman's bookstore and buy "Dr. Bennett's Clinical Lectures on Medicine," London, 1860, where the whole controversy is sufficiently spoken of (p. 250–292). With some more physiological knowledge than he really possesses, Dr. Depierris would find it theoretically proved that bleeding does not cut short or cure inflammations; nay, it retards even the natural cure, and more, he would find this theoretical truth to be confirmed by a series of statistical facts not admitting the slightest doubt. But our friend has practiced bleeding for thirty years—moderate bleedings of thirty-nine ounces—and so let him bleed on; the diploma approves of it!

We will now give a short report of the post-mortem, as by the unanimous declaration of the physicians present the Doctor's story is not quite exact.

The external surface of the defunct decidedly pale-looking. Near by on a table stood a basin with the blood taken from deceased. It exhibited not the least fibrinous crust, what old physicians call the inflammatory coat; (I observe hereby that in California the coat (fibrinous) is seldom to be met with—showing thereby the incorrectness of the Doctor's reasonings on the climate of California ;) so that if the patient was plethoric at all, it was more a serous plethora than the hyperinotic one. On opening the pleural cavity, neither I nor any one else could see superabundance of blood pouring out under each cut, so that it could hardly be sponged off. Unluckily for Dr D. no sponge was there at the time. The heart was entirely bloodless, no coagula of any kind in either cavity; the substance rather soft—the left ventricle seemed to be dilated, perhaps on account of the thin walls, but the dilatation was unimportant and eccentric: so that the Doctor's argument that it could not overpower the mass of blood is perfectly absurd, because such a state would cause concentric hypertrophy. The lungs showed no sign of recent disease, containing air everywhere; the left lung showed some old adhesions in the upper part—notwithstanding the Doctor's bold assertions that there was congestion, nobody at the time could see it, and I was obliged to tell him several times there was none. As the lungs were taken out, in the posterior part of the inferior lobule was found a slight hypostasis—as it is found in almost every corpse, and it is often difficult to say how much of this watery exudat is due to a process during lifetime, during death struggle, or to the law of gravitation, as a mere post-mortem phenomenon. In this case it was so slight, and so confined to the lowest situated parts, that I soon came to the conclusion that it was a mere post-mortem phenomenon. But where was the diagnosticated hepatization of the lungs? Does the Doctor know what this word means? Surely not. He says there was no organic disease; he told the jury there was no inflammation—but he assures us there was hepatization. Does not that speak for itself? But, for the Doctor's sake we will throw some light upon this point so obscure to him. We find the word hepatization used in company with two adjectives, as red hepatization and gray hepatization, both belonging to one concise disease—to the inflammation of the lungs (the true pneumonia)—and designating the so-called second stage of said disease, where the exudat in the air-vesicles began to organize, or is already organized; and only this kind of solid exudat in the lungs is called hepatizations, while exudats of other character are called by other names. Such hepatization, so long as not dissolved, is an organic disease, is the product of inflammation, is never removed by bleeding, and is after death, even should it have passed already to the stadium of solution, easily recognized. And this same Doctor who does not know what hepatization of the lungs means, diagnostieates it, and is bold enough to write in a public paper that this hepatization leads unfortunately too often in the State of California to a fatal termination, under the false name of consumption, because physicians here generally overlooked and mistook it, and did not abstract thirty-nine ounces of blood from a poor victim! All medical men in this State will agree that pnenmonia, and therefore hepatization, is seldom to be met with; and you may see in a city of the same population in Europe in two months more true pneumonia than here in three years. The kidneys were hyperæmic so much is true, but such is the case in nearly all diseases where an albumineous crasis, as Rokstansky once called it, though the expression is obsolete, prevails; a state of things quite the contrary to a hypernotic plethora. Some good hand-book of pathological anatomy would give the Doctor the necessary information; will not his patients furnish it? The brains showed no overloading with blood, rather less so than customary. The Doctor saw varicose veins there, but surely alone; even if it had been so, (one of the rarest pathological phenomenas.) it is new to me that such would demand bleeding. I believe there are not two physicians in the State who have seen one case of varicose veins in the brains. The Doctor going on with similar assertions and nonsense, winds up all in such an inextricable confusion of ideas as surely never existed in one man's brains since the time of Babel! But the most ridiculous idea I ever met with the Doctor brings forth to explain how the man died from suffocation from a mouthful of water. Surely the Doctor must have got it from a dream's vision, as he did not say anything about it at the Coroner's inquest. I am of opinion that such an accident as the Doctor supposes might have saved the defunct, instead of suffocating him—because the irritation would have caused him to cough, let the Doctor try, if he wishes, to irritate the epiglottis or larynx of some fainting individual. But the man died, and the attendants did not observe anything like coughing, so the water went the right way. But even should a mouthful of water go wrong, it would suffocate nobody. If the little foamy water I pressed out of the lungs was something new to him, and if his wearied soul pondered over it till the divine idea came out, I must give him the testimony, he witnessed few post-mortem examinations, never one of drowning, and understands little of pathological anatomy.

For a better surveyance, we will finally recapitulate once more all the erroneous ideas of this learned doctor, in form of thesis, and each professional man may form his own opinion:

1. Fullness of blood is very common in California, on account of the winds and heat, which dry up the fluid of the blood!

2. Such fullness of the blood causes apoplexy, aneurisms of the heart and blood-vessels.

3. Thirty-nine ounces of blood abstracted at once is a moderate bleeding.

4. Four out of every five individuals bled will faint. (Moderately?)

5. Such fainting is never fatal. (Why?)

6. An individual has no organic disease or inflammation, and yet has hepatization of the lungs.

7. Most Doctors of the State are yet so far behind in science that they mistake hepatization for consumption.

And now we take leave of our learned friend—graduate of Montpellier. We wish him all possible success, many patients—*ettouffe par sang*—and give him one little sentence on his way:

Si tacuisses,
Philosophus mansisses!

San Francisco, August 2d, 1861. Ed. Staub, M. D.

Essays on Children.

BY A STUDENT.

(Continued from p. 184, vol. ii, of this Journal.)

1. *Trismus Nascentium — Convulsion of the new-born Child— Fits— Spasms—Locked Jaw—Tetanus.* For simplicity we will call this affection simply *Trismus*, from the Greek word *Trizo*—"I gnash." This disease is so named from the working of the lower jaw tightly upon the upper, by which in the infant a sound is produced similar to that resulting from rubbing two pieces of wet or green leather against each other. It would be gnashing of the teeth if the infant had teeth; but the affection now referred to always occurs in the first ten or fifteen days of life, and most frequently within the first three days. If once seen it will always be recognized a second time. There is the whimpering cry at first; the hardened aspect of the neck, arms and legs—in fact, of the whole body as the paroxysm developes; the inability of the child to open its mouth so as to take the nipple—one of the first symptoms—the rigidity of the limbs, fingers and toes; the purplish look, the backward bending of the body, the head well back and the neck stiff, the relaxation and the rigidity, and then the recurrence of the same phenomena at less and less intervals, till the ultimate relaxation in death. All these are signs when once seen and observed never to be forgotten. It is probably caused by congestion in the membranes of the brain or spinal cord, or by exudation of minute gouts of blood in some portion of the sheath of the cord, or by inflammation of these parts. This is undoubtedly the

case in those persistent tonic convulsions or spasms affecting the whole body as well as the lower jaw, which often occur the first day of infant life, even before the child has taken the breast. These fits are nearly always fatal. In truth, I do not know of a single recorded case of recovery after the full development. But, if the convulsion occurs after the child has taken the breast, or after sudden exposure to cold or a draft of cold air, and is limited to the face, or to the face and upper extremities, it *may* frequently yield to enemas of soap and water, or even plain warm water, or to a hot bath applied only to the lower half of the body and lower extremities. If the water be allowed to cover the chest also, the convulsion will frequently be increased in violence from the instinctive or organic fright of the child, independently of the cognizance of the mind.

2. Of all the remote causes of trismus in infants, beyond question none are so potent, not even family tendency, as impure or unrenewed air. The air a child breathes should not only be uncontaminated with the effluvia of vessels and cast-off clothing of the bed-chamber, but it should be momentarily renewed, by the free entrance of air from an open window—open at the top, if practicable, but open even if the panes have to be broken out; no curtain before the opening, for if it is curtained or screened with a veil even, the window might as well be closed. If a child has a convulsion, then, no matter from what cause or at what age, place it in a constantly ventilated room. If the room is too cold, wrap the child more warmly, or make a fire. Never heat a room with human expiration or radiation from human bodies; these should be blown away by fresh air as fast as they emanate. We may put a leech, or two, or three behind the ears, or at intervals of a few inches all along the cervical and dorsal vertebræ of a child in convulsions; we may allow sinapisms to the hands and feet; we may give a dose of calomel or oil, if we can; tetanus is often so complete that this last will be impossible; neither will do harm, and probably *no good.* If the convulsion does not yield speedily to the enema of warm water and soap, we may place the infant under chloroform, and hold it there as long as the convulsion manifests any sign of recurring. I used no other means but chloroform (after the enema) in one case of convulsions—not tetanus of the new-born, though—in a child eighteen months old, and the child recovered after being kept under chloroform, more or less completely, more than two hours. There can be no objection to the same treatment even in an infant a day old. I used it in one case of trismus when the opisthotonos was complete, in a child of twelve hours only, after a few enemas, and a leech behind the ear without result. I tried the chloroform for an hour, but as often as the anæsthesia was allowed to pass off ever so little the spasm returned *pari passu* with the subsidence of the anæsthesia. The infant died in less than three hours after I began administering the chloroform; but I have no idea this either shortened or prolonged its life. These very early cases will generally die under any treatment. A few drops of light wine with sweetened water, at intervals, for the first few days, will often prevent convulsions of the new-born, if at the same time it is not suffocated under its mother's arm, or by having its mouth

covered so that it can get no air until it has passed through a napkin, or thin flannel blanket, or some other of the numerous contrivances in all nurseries for enfeebling the vitality of new-born children—the precious darlings!

This disease must not be confounded with ordinary convulsions or fits, as they occur in children after the first half month. A convulsion from teething, from fright, from laughing, from crying, from worms or from indigestion is curable, but in the present state of our knowledge, the trismus tetanus of new-born children is incurable. The means we employ are *merely* for the gratification of the parents, and because it is *possible* the physician may be mistaken in his diagnosis; the case may *not* be tetanus, and if not the child may recover. *But tetanus in the new-born is fatal.*

3. *Recapitulation.*—To prevent convulsions: fresh air, absolute cleanliness, a few drops of wine daily for the first few days of infant life. See that the bowels and bladder are evacuated two or three times a day.

4. *Treatment.*—Pure air, enemas of almost any warm and not irritating fluid in large quantity, say a quart at one sitting, in quantities of from two to four ounces at a time; leeches behind the ears; sinapisms to the hands and feet; warm bath to lower half of the body.

But, be not deceived; after all this the child will die in a few hours.

Editor's Table.

DELIRIUM TREMENS—*Case of, Cured with Tr. Digitalis.*—August 4th.—A. B., at 9·30 A. M., is dripping with clammy perspiration, is smoking a cigar, and trembling like one in extreme age. His eyes are lustreless and raised when he speaks to any one with effort; his pulse is 120, and intermits at every third, fifth or ninth beat. The heart is evidently nearly exhausted; that the smooth muscular fibres have nearly lost their contractility is evident from the persistent serous transudation from the skin. He is talking constantly concerning himself, and of the great calamities that are to befal him—that is, his mania is esoteric, which is the worst form of *mania a potu.* He was taken in a carriage about a mile to more comfortable apartments, and though carried to his bed, when laid down he was quite exhausted, and death really seemed to be imminent; his pulse intermitted as often as every third or fourth beat. We (Surgeon Charles Mc.Cormick, U. S. A, and ourself,) consulted whether to put him to sleep with chloroform, or to try the tr. of digitalis, in large doses, as recommended by Mr. Jones of Jersey, and tried with success by Dr. Jas. Blake, of Sacramento. (See *Pacific Medical and Surgical Journal,* No. 36, p. 475.) Our reason for hesitating concerning chloroform was the proximate extinction of function of the smooth muscular fibres, as proved by the utter relaxation of the skin, and frightful unsteadiness of the heart; for, although chloroform has no *direct* action on the heart, (smooth muscular fibre,) yet, beyond question, by suspending violition, before the organs are prepared to do without its aid, chloroform increases the liability to death in a case at this extremity; for respiration is certainly more easily performed in extreme debility with than without the consent of volition; and on the integrity of this function depends the condition of the circulating fluid, and consequently of the heart itself. In short, we feared that with the great diminution in tone and harmony of the heart's motions chloroform might kill him outright. We were also unacquainted, by our own observation, with the effect of the enormous doses of digitalis we subsequently gave, and were naturally very anxious about the result. But it seemed entirely probable that if digitalis induced sleep at all, it would follow only as a secondary effect—that is, it would first steady the heart, diminish the frequency of its contractions to a normal ratio with the respiration, and that then sleep would naturally follow, but not till organic life should be so far fortified as to be able to continue temporarily without the consent of volition. Such was our theory. The following is the practical result: As soon as our patient had been undressed and placed in bed, we gave him from a graduated glass precisely four drachms of undiluted tincture of digitalis, all of which he drank; no water after it. This was 10·30 A. M. We now each took a wrist, and watched the pulse. In fifteen minutes it had diminished in frequency, and intermitted only as often as every 9th, 20th, or 42d beat. By the expiration of twenty minutes, the pulse was manifestly fuller, appreciably slower, and the intermissions were frequently postponed to the 70th and even 90th beat.

12 M. He has not yet slept; talks considerably, but less irrationally; his mania is now exoteric. He talks only of things external to himself; his ethical state is not alluded to. Intermission only at rare intervals—once in several minutes, without any uniformity. The marked features of improvement are, subsidence of the colliquative transudation, diminution of the frequency (now down to 96,) and increase in the volume and resistance, and prolonged postponement in the intermissions of the pulse; return of lustre to the eyes and the change in the character of the mania from subjective to objective.

But as he has not yet slept nor ceased talking insanely, we administer *statim*, precisely four drachms more of the tincture of digitatis, followed by two swallows of water. On watching the pulse for fifteen minutes, we find intermissions absent, and that its volume is normally full and quite steady. His fingers do not tremble; he has urinated twice in the past hour and a half. 2 P. M. Patient has seemed drowsy at times for the past two hours, but has not slept soundly. Vomited a couple of ounces a few moments since; has urinated twice in the two hours past. Pulse 92, good; skin normal to touch, and scarcely moist; talks but little and almost rationally; all he says is objective; no moral illusions. Direct him to have half an ounce of the tincture if he is not asleep within half an hour.

7·10 P. M. He had half an ounce more of the digitalis at 2·20 P. M., and before 3 P. M. was asleep, and is still sleeping. We do not disturb him to examine the pulse.

August 5th.—8 A. M. Patient slept till eight last night, when he awoke with some fever; drank water, and slept again at intervals till 1 A. M., when he sent for a friend and told him he was dying, and wished to direct him about some papers. "I then," says the patient, "took a little beef juice, and after a little a glass of water, and settled myself calmly in bed to die—and wished to die decently and with propriety; but, instead of dying, I merely went to sleep, and when I awoke again, about daylight, felt perfectly well, my fever all gone." His pulse is now 90, normal as to volume and force. He is perfectly sane, and says he feels well. His tongue is covered with a white coat. Direct him to have beef juice during the day; no medicine. His bowels moved spontaneously during the night; feces free and dark-colored; urination a little more than normally frequent and copious, according to his narration—we have not seen it. August 6th.—Patient discharged well.

This patient had been judiciously and carefully treated according to the usual methods for *four days* previous to the 4th of August, during which time he had neither eat no slept. He was rapidly growing worse, and Dr. Mc.Cormick and we also are confident he must have died within a very few hours under any other known treatment. This case *alone* determines, in our estimation the innocuousness of digitalis in enormous doses, *when administered to patients in the last stage of delirium tremens, and also its rapidly curative effect in this frequently fatal affection.* We by no means desire to intimate that because one and a half ounces of digitalis cured a case of delirium tremens, that the same amount would not kill a case of fever or other disease.

HEALTH OF SAN FRANCISCO.—During the month of July the weather was very warm, the winds from the ocean uniform and violent every afternoon, as usual at this season of the year. There was no epidemic. A few cases of small-pox were reported, and two or three sporadic cases of cholera. Cases of cholera morbus were numerous. A few cases of croup and croupous pneumonia in children, but no general prevalence of these diseases. Dr. Staub and ourself performed tracheotomy on a child fourteen months old with croupous pneumonia, when almost moribund. Its lips, tongue, gums, ears, &c., were deeply purple when we began the operation. On inserting the tube in the trachea, a blood-tinted froth issued at each expiration for a few moments; the cyanosis immediately disappeared, and the child breathed easier and slept quietly after a little; but the lungs were too much involved for hope. It died easily twelve hours after the operation. There is no doubt its life was prolonged several hours by the operation.

The whole number of deaths for July is 125, of which 45 were under three years of age—that is, more than one-third were children in the first years of life. Are there no means of diminishing this mortality among those whom we should naturally suppose are least liable to necessarily fatal diseases?

There were 79 Protestant deaths, 2 Jewish and 44 Catholics. Of the 44 Catholics, 23 were children under three years. Of the 79 Protestant, 22 were under three years of age. A little more than one-half the Catholic deaths were under three years; less than one-third of the Protestant deaths were under three years.

We visited several churches during the month and find the same deficiency in ventilation during service we used to observe twenty years ago. We think these ill-ventilated places of Divine worship during service are crying evils, and those who undergo the torture of slow suffocation for an hour or two in them, do so at the risk of serious injury to their health. We almost despair of ever entering a church tolerably attended, in which the act of respiration can be agreeable or very useful.

ARMY DOCTORS.—Out of 101 applicants who recently applied for posts as surgeons and assistant-surgeons to the New York volunteers, only 37 passed the medical board. This is the fruit of the American system of medical graduation. Only one out of three of the graduates of our colleges is fit to practice on a soldier; while the other two are allowed to stay at home and practice on the women and children, and the people generally. Now, the truth is, less science is required in military than civil practice; and why the army should require *better* qualified doctors than the people we can't imagine, except it be that a soldier is worth more than a civilian, and the people can't so well afford to lose one of their protectors as one of their associates; or is it not the money instinct after all—it costs more to replace a soldier than it does an infant? Any graduated physician *should* be eminently fit for the post of assistant-surgeon or surgeon in the army without a re-examination; he *should* be, but not one in six is fit to be trusted with the lives of soldiers or citizens. We, for one, are determined to speak out on every occasion about this growing nuisance of American medical graduation.

THE "YEAR BOOK."—We learn from a private letter from O. C. Gibbs, M. D., of Frewsburgh, N. Y., dated July 28th, that the "Year Book" will not be published. This is much to be regretted, and we still think if it were published the sales, independently of the advanced subscription price, would more than pay all expences within the first six months. Scores of physicians who will not subscribe for an unpublished work would readily buy it as soon as published. We sincerely hope Dr. Gibbs will reconsider his resolution *not* to publish, and let us have the "Year Book" as soon as possible. The following is an extract from the letter referred to:

"I can only thank you a thousand times for inserting my circular in regard to the "Year Book." For the present I shall not publish. The manuscript was prepared, and everything ready for publication, but the times were such that I was obliged to forego publication at present. I have labored hard and long, night and day, on the work, still the profession do not appreciate it. Of the fifty or sixty thousand physicians in this country not more than one hundred and twenty-five subscribed for the work. I will not publish a work of such general interest at a pecuniary loss on the start"

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late JOHN W. FRANCIS.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from emiinent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the SUMMARY OF MEDICAL SCIENCES will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "THE EPITOME"—and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

TO W. S. WELLS, M. D.—DEAR SIR: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage aud can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE
Pacific Medical and Surgical Journal.

Selections.

New Anæsthetics---Theory of their Action.

BY CHARLES T. JACKSON, M. D.

SUBSTITUTES for ether, as anæsthetic agents, are frequently proposed, and some of them have been practically introduced, with some success. None, however, surpass ether in the two most important qualities of efficiency and safety, and there can be no doubt with respect to safety, ether is far preferable to any and all anæsthetics thus far discovered.

It may prove interesting to the profession to inquire into the mode of action of the class of bodies known to produce anæthesia, when inhaled. This subject has been very carefully studied by me from the outset of anæsthetic practice, and with a view to the discovery of some general law.

The first impression among physicians was that the anæsthetic state was merely one of temporary intoxication.

Secondly, the theory of high excitement, followed by corresponding collapse, accounted for the phenomena. Dr. John C. Warren took, at one time, this view of the matter, and spoke of etherization as "devouring the sensibility by high stimulation, and hence a corresponding nervous depression," which was the anæsthetic state. Others have supposed that etherization produced a partial asphyxia; hence the expression early made use of by some of our surgeons, that there was "little difference between hanging, drowning and etherizing."

It has also been alleged that ether absorbed into the sanguineous circulation affects directly the nervous filaments, either at their origin in the medulla spinalis, or in their distributed extremities, or in both these parts. In support of this allegation, it was cited that a direct application of ether to an exposed nerve *destroyed* its sensibility. By the italization of that word, I call attention to the difference between the anæsthetic state of temporary suspension of sensibility, and the destruction of it; for the nerve acted directly upon by ether does not recover its powers, but is permanently paralyzed.

Another state of the circulation has been observed, which it was hoped would give some clue to the action of anæsthetic agents—namely, that of slackening, and even temporarily wholly suspending the circulation of blood in the capillary or extreme vessels. It was supposed that by thus cutting off a supply of circulating blood stimulus to the sentient extremities of the nerves, sensation was temporarily suspended. The commencement of insensibility in the remote extremities, the feet, legs, and hands, seems to indicate that sensation was suspended at those points first.

The French physiologists, Flourens and Longet, are of opinion that the effects of anæsthetics commence, and primarily act on the great nervous centres, the medulla spinalis and medulla oblongata; and that if the full effect reaches the bulb of the medulla, death will take place from total suspension of all the vital functions of the body.

A more chemical explanation of the action of anæsthetics is, that they all abstract oxygen from the blood, and hence reduce its peculiar stimulating powers on the nerves, and that some of them leave poisonous products, while those left by others are innocuous. Thus, as we have formerly stated, chloroform or the ter-chloride of formyl abstracts three equivalents of oxygen from the blood, but, at the same time, unfortunately it deposits, in exchange for the oxygen, three equivalents of chlorine.

Bi-sulphide of carbon, one of the most terrible anæsthetics ever proposed, the dangerous effects of which I have experienced, and have warned the public about seasonably, acts as a powerful de-oxidizer of the blood, both the carbon and the sulphur abstracting oxygen, the first producing carbonic oxide or carbonic acid, while the latter forms sulphurous acid. Carbonic oxide and sulphurous acid are poisons, as is also chlorine, before mentioned.

All the acidiferous ethers when decomposed, as they are, in the organs of respiration and circulation, leave their acids in combination with the blood; hence, nitrous and nitric ether are known to destroy life, and hydro-chloric ether and chloride of hydro-carbon undoubtedly act in the same way, and injure the quality of the blood. Acetic ether is not objectionable, since an organic acid is easily decomposed in the processes of respiration, and is removed in the form of carbonic acid and vapor of water, usual products of normal respiration.

Sulphuric ether, as it is improperly called, since it does not contain any sulphuric acid, is a pure hydro-carbon, with one equivalent of oxygen. When decomposed by the action of the blood, it may be converted into aldehyde, acetic acid, and lastly into carbonic acid and water, no fixed product remaining in the blood, but all able to be removed by respiratory action. The odor of the breath of a patient who has been etherized, shows that there are exhaled the oxidized products of the ether, and it is known by analysis that a much larger proportion of carbonic acid is exhaled from the lungs, during the etherized state, than in the normal condition of the system.

Without finally adopting any theory of the chemical and physiological action of anæsthetics generally, we may, perhaps, be allowed to call attention to a general law, namely, that all very volatile hydro-carbons act as anæsthetics, like the others. Thus, it has long been known that benzine, benzole, oil of turpentine and naptha, when inhaled, will all produce the anæsthetic state. The highly volatile oils of coal tar, likewise, possess anæsthetic properties, and one which has recently been tested in surgical practice, known as kerosolene, a highly volatile naptha, seems to be the least offensive of them. It is evidently a very pure hydro-carbon, analogous to highly rectified naptha, and does not contain any oxygen, as it is proved by its property of preserving potassium from oxidation, when it is immersed in it. The first samples of kerosolene which I tested, two years ago, proved quite irritating to the organs of respiration; but I have learned recently that a purer and more volatile product has been made at Mr. Downer's works, though I have had no opportunity of testing it practically.

It is obvious that there are two or more volatile oils in the kerosolene of commerce, and they are separable by graduated distillation. Some care, therefore, is requisite in the preparation of a uniform product; one which may be properly the subject of experiments by inhalation. I would observe that no analysis has yet been made of the kerosolene oils.—*Dental Cosmos.*

Sanitary Commission.

The following is a report of the Resident Secretary of a preliminary survey of the camps of a portion of the Volunteer forces near Washington:

To the Sanitary Commission:

Gentlemen: Your Resident Secretary has inspected twenty of the volunteer camps during the last ten days. Of most of these his examination was cursory, his object being to acquire some knowledge of the ordinary and average condition of the force, to enable him the better to direct subsequent inquiry, rather than to personally make an exact survey of the condition of each regiment. Of some few, however, his examination has been thorough, while from others he has received reports of inspections made under his instructions with a view to obtain precise information. Considerable confidence can therefore be placed in the general conclusions as to matters of fact which will be expressed. The camps of the Rhode Islanders, and of the 71st and 12th New York militia have not been visited, because it has been understood that their condition was exceptional, and no time could be spared from the more general duties for the purpose. The Resident Secretary has also endeavored to make himself acquainted with the character of the supplies furnished, and with the manner of their distribution. Having been accompanied in most of his visits by Dr. Harris, the Resident Secretary will omit, as far as practicable, observations on the distinctly medical condition of the forces, presuming that Dr. Harris, on his return from Fort Monroe, will present a report on this topic.

Situation and Drainage.—The camps, generally, are favorably situated as to natural surface drainage. In many cases, not the slightest artificial drainage has been arranged; in others, surface drains have been dug on one or two sides of a tent, or a line of tents, but an outlet entirely neglected, and this, sometimes, where an hour's labor of a man would have formed one. The drains are consequently ineffective. A complete system of drains, such as should have been laid out and made in the very hour the tents were pitched, can scarcely be found in any camp. In consequence of this neglect, during a recent sudden heavy rain at night, it is reported that water stood two inches deep in the tents of many camps. In respect to drainage by filtration, the quality of the soil and subsoil varies too much to allow any general statement to be made. The camps are generally on open ground, but some of them in the shade of woods, and the latter generally considered to be the more fortunate sites. Looking to the health of the men, this is unquestionably a grave error, of which evidence abounds. It is an advantage, however, to have a shaded place for drill near the camp, as is sometimes the case with those on the open ground. The tents are placed much closer together than they should be; closer than is usual in camps of regulars, unless under special circumstances. The site of the camps is selected by an officer of the Quartermaster's department, not by the regimental officers. Night-soil has been recently deposited in large quantity within a short distance of several of the camps, and between them and the town. This has occurred because the scavengers have been unable to pass the lines of sentries at night. Immediately on learning this, a note was addressed by the Secretary to the Mayor of the city, and a communication obtained with the health officer, who readily promised that the practice should be avoided. The use of cheap disinfectants was recommended to him to be applied to the night-soil already deposited near the camps.

Malaria.—There have been but few cases of intermittent fever found; three in one regiment is the largest number; this camp was situated near a pond.

Sun-Stroke.—A few cases have occurred in almost every encampment. The men are generally provided with "havelocks," which are worn or dispensed with according to the caprice of individuals. Even at the dress parade in most regiments, each man wears a havelock or not, at his pleasure. The havelocks as generally made are of little use. The article worn by the Indian troops, pictures of which probably suggested that termed in America the havelock, is quilted and stiff, resting on the shoulders, and thus kept open, clear of the ears, and allowing a free circulation of air beneath. Men who have been drinking freely of water when on a march, or at drill, are the most frequent sufferers from sun-stroke.

Water.—Water, of good quality, is generally found in abundance near each camp.

Tents.—The most common tent is a poor affair, being similar in form to the French *tent d'abri*, but without its advantage of portability. The common wall tent is also largely used, and is much better. During the day the walls are triced up, and the tent is well ventilated; but at night, if the walls are lifted, or the flaps opened, the drift of the dew-laden wind across the men sleeping on the ground is felt to be severely cold. In most cases, therefore —the officers paying, apparently, no attention to the matter—the tents are closed as tightly as possible at night, and are crowded full of sleepers, six to eight and sometimes ten men being found in each. Of course they breathe a most vitiated atmosphere. Those who are most sensitive to this are sometimes forced out of the tent; and in a camp visited at night, the Secretary discovered that many men were sleeping on the ground, without any protection from dew or malarious influences. This had not been regarded, and apparently was unknown to the regimental officers. The wall tent, when provided, as it is sometimes found to be, with large square openings at the end, with flaps to button over them when necessary, is the most comfortable tent for summer. This, or some other opening for ventilation, well above the ground, should be provided in all cases. The "Sibley" is, however, much the best tent for all purposes, and it is to be hoped that it will rapidly displace all others. It is easily ventilated, and at the same time supplies the best protection to its occupants during inclement weather. The men generally sleep on a single blanket spread upon the ground. The regiments sent by the New York Defence Committee, and some few others, are provided with india-rubber tent-floors, or blankets, and in some cases the tents are furnished with plank floors. These, which would otherwise seem best for a fixed camp, afford an unfortunate facility for the accumulation of unwholesome rubbish. Where there are no floors, loose straw is sometimes used, and in other cases straw in sacks.

Sinks.—In most cases the only sink is merely a straight trench, some thirty feet long, unprovided with a pole or rail; the edges are filthy, and the stench exceedingly offensive; the easy expedient of daily turning fresh earth into the trench being often neglected. In one case, men with diarrhœa complained that they had been made sick to vomiting by the incomplete arrangement and filthy condition of the sink. Often the sink is too near the camp. In many regiments the discipline is so lax that the men avoid the use of the sinks, and the whole neighborhood is rendered filthy and pestilential. From the ammoniacal odor frequently perceptible in some camps, it is obvious that the men were allowed to void their urine, during the night at least, wherever convenient.—*American Medical Times.*

Kerosolene—A New Anæsthetic Agent.

BOSTON again claims the honor of discovering an anæsthetic. But this time neither Jackson nor Morton is the happy discoverer of this new letheon, therefore there is no special danger of a patent. In answer to your inquiries I cannot at present afford a more satisfactory account than is given by Dr. H. J. Bigelow, in the following letter to the *Boston Journal:*

"Messrs. Editors: In reply to your request for information concerning the 'kerosolene,' and though the evidence is incomplete, I see no impropriety in my furnishing you with such observations as I have been able to make since its introduction to the Medical Society last evening, by Mr. Merrill, Dr. Dickinson, and Dr. Bowditch, as an untried agent of suspected anæsthetic properties, which had accidently affected a man sent in to clean a cistern at the kerosene works, and which had been afterwards tried on flies and mice.

"This fluid presents remarkable properties. It is tasteless as water, volatile and inflammable as ether, though burning with a dense white light; of a faint chloroform odor, which, as it evaporates, changes to that of coal tar, and then disappears absolutely and altogether; so that a handkerchief saturated with the fluid has, at the end of a few minutes, when dry, no odor at all, nor has the room or atmosphere where it has been used any trace of its presence. Both ether and chloroform leave, in different degrees, a persistent, *fade*, and stale aroma after evaporation, as is well known. They are also far less agreeable to inhale than this new agent, which has thus an obvious advantage over either of them. A few whiffs were sufficient assurance of its efficacy as an anæsthetic, which, with its other qualities, as I ventured to remark, would place the kerosolene beyond any known anæsthetic, provided its use was not followed by headache, vertigo, or other unpleasant symptoms, and provided it should prove as free from danger as ether. Subsequently I inhaled the new vapor, which Dr. Hodges at my request administered. Complete insensibility supervened, lasting several minutes, with some diminution of the volume of the pulse. Its effect was wholly agreeable, leaving neither headache nor nausea, nor bad taste.

"I have this morning administered it to three surgical patients. The first, a girl of nineteen, presenting some hysteric tendencies, having thrust some twenty needles in her leg, was wholly insensible during the extraction of four of those which remained. Yet there was more cough than I expected from the wholly unirritating odor of the vapor, more muscular rigor than usual in favorable anæthesia, and more intermittence of the pulse. In a second patient, to whom it was given preparatory to an operation upon the face, insensibility was equally complete. But this woman did not take it kindly, and its complete effect was attended by so feeble and intermittent a pulse as to lead me to desist until she had recovered. A second attempt reproduced, with anæsthesia, the feeble and intermittent pulse, and I again desisted. Upon her recovery, I gave her common ether vapor, which she afterwards said was less agreeable, but which was followed by complete insensibility, the pulse beating steadily and full at seventy-six. Though this patient perhaps succumbed more readily to a third anæsthesia, there seemed to be in the first two trials a certain degree of color and asphyxia, with its attendant spasm, which I have elsewhere described as an occasional and disagreeable symptom of attempted anæsthesia. To guard against this asphyxia, which might possibly have resulted from the folded towel, upon which I habitually administer ether, I tried in the next case an open sponge. The subject required a considerable incision for a mammary abscess, and was a patient of Dr. H. G. Clarke, with whose consent I tried the kerosolene. In spite of the open sponge, the symptoms of asphyxia again appeared, suggesting to Dr. Clarke before operating their resemblance to those resulting from charcoal gas. The color was livid, and the rigidity marked. In each of these cases the quantity used was from one to two ounces.

"In conclusion, it may be remarked of these three cases, that they are insufficient for satisfactory demonstration, and that their common and unfavorable symptoms may well have been but a coincidence; yet they suggest some caution in the use of the kerosolene vapor. It is probably more potent than that of ether, requires a free admixture of air, and may produce upon the system some impression or influence, other than that of the mere intoxication attendant upon the use of ether. In awaiting further evidence, it may be considered established that kerosolene is an anæsthetic of undoubted efficacy, and that it possesses certain remarkable and attractive properties peculiar to itself."—*American Medical Times.*

On the Properties of Liquid Carbonic Acid.—By George Gore, Esq.—In this communication the author shows how a small quantity of liquid carbonic acid may be readily and safely prepared in glass tubes closed by stoppers of gutta-percha, and be brought in a pure state into contact with with any solid substance upon which it may be desired to ascertain its chemical or solvent action, or be submitted to the action of electricity by means of wires introduced through the stoppers. By immersing about fifty substances in the liquid acid for various periods of time, he has found that it is comparatively a chemically inert substance, and not deoxidized by any ordinary deoxidizing agent except the alkali metals. Its solvent power is extremely limited. It dissolves camphor freely, iodine sparingly, and a few other bodies in small quantities. It does not dissolve oxygen salts, and does not redden solid extract of litmus. It penetrates gutta-percha, dissolves out the dark-brown coloring matter, and leaves the gutta-percha undissolved, and much more white. It also acts in a singular and somewhat similar manner upon india-rubber. The india-rubber while in the liquid acid exhibits no change, but immediately on being taken out it swells to at least six or eight times its original dimensions, and thus slowly contracts to its original volume, evidently from expansion and liberation of absorbed carbonic acid, and it is found to be perfectly white throughout its substance. These effects upon gutta-percha and india-rubber may prove useful for practical purposes.

The liquid acid is a strong insulator of electricity; sparks (from a Ruhmkorff's coil) which would pass readily through 9–32ds of an inch of cold air would with difficulty pass through about 1–70 of an inch of liquid acid.

In its general properties it is somewhat analogous to bisulphide of carbon, but it possesses much less solvent power over fatty substances.—*Proceedings of the Royal Society, in Chemical News.—Dublin Medical Press.*

Parisian Medical Intelligence.

(From the Special Correspondent of the London Lancet.)

In my last letter I mentioned that M. Reveil, the chemist, had drawn the attention of the authorities in France to the necessity of preventing perfumers and hairdressers from selling poisonous articles, whether under the the denomination of dyes, soaps, cosmetics, or toilet-washes; and of forbidding any tradesman, unprovided with a regular licence, from dealing in such dangerous preparations. M. Reveil remarks that when it is considered that the compounds he refers to contain, many of them, arsenic, acid nitrate of mercury, tartar emetic, cantharides, caustic potash, and like poisonous drugs, in considerable quantities, the urgent need for some interference will be readily understood. He further states that such is the bad faith of the manufacturer in these particular questions, that while articles are announced as being composed of some well-known and innocuous ingredients, on chemical analysis they are not unfrequently found to contain most deleterious substances, and not one atom of the alleged principal compound. The kind of soap, for instance, known as "lettuce soap," and sold, by the way, as acknowleged by the Academy, does not contain a trace of lettuce. This, and several other soaps are colored green by means of the sesquioxide of chromium, or of a rose color by the bisulphuret of mercury. Some, again, which are cheaper, contain thirty per cent. of insoluable matter, such as lime and plaster, while others contain animal matter, which, having escaped the process of saponification, emits an offensive smell when its solution is left exposed to the air for any time. The preparations used for hair dyeing, under the euphonious titles of "Florida Water," African Water," &c., all contain nitrate of silver, sulphur, oxide and acetate of lead, sulphate of copper, and other noxious substances. All the cosmetics called "depilatories," and used for removing hairs, as well as those for clearing the complexion of freckles, are poisonous; and one, the "Lait antephelique," owes its efficacy to the presence of corrosive sublimate and oxide of lead. Were, indeed, a chemist to deliver such a remedy to a customer without a regular prescription, he would be liable to a fine of 6,000 francs. The toilet-vinegars, also, so generally used by ladies, are, M. Reveil believes, injurious to the skin, and especially when employed in conjunction with soap. In these acids, a decomposition ensues, and the fatty acids of the soap, which are insoluble in water, remain in contact with the cuticle, and may act as an irritant. At the conclusion of his memoir, the author expressed his regret—a feeling which will, I believe, be very generally re-echoed—that certain of our confraternity should so entirely forget their own dignity as to lend the support of their names to such noxious inventions.

A curious case recently brought before the Society of Surgery throws some light upon the mysteries of the Bagnio, and illustrates the desperate nature of the expedients to which the galley-slaves are in the habit of resorting, in order to elude the vigilance of their gaolers. A convict at the prison of Vannes; in Normandy, condemned to fifteen years of hard labor for robbery, was suddenly seized with colic, vomiting and fever, accompanied by obstinate constipation. In the presence of these symptoms of intestinal obstruction, search was made for a hernia, but none was found. The prisoner, aware of the gravity of his state, and hard pressed for some explanation as to the origin and cause of the disorder by the attendant physician, confessed to having been in the habit of secreting within the cavity of the rectum the money he happened to possess. An examination of the lower bowel, first by the finger, and then by a long pair of forceps, threw no light upon the case; the intestine was empty. The peritonitis daily gained ground, and the patient, evidently sinking, was again urged to give some more satisfactory clue as to the source of the disease. He now somewhat modified his previous statement, and said that he had introduced into his rectum, a few days previously, a cleft stick, which he used as a *porte-monnaie*, and that in the hurry of a sudden alarm, the pointed end had been inserted foremost, in lieu of the blunt extremity. The left hypochondriac region was then carefully explored, and towards the upper part of the *descending* colon, a voluminous tumour was discovered; this corresponding with the point of the obstruction. Towards the end of the seventh day the man died, and the autopsy revealed the following: The usual post-mortem signs of acute peritonitis—serous effusion, false membranes, enormous distension of the intestines by flatus—and moreover the existence of a foreign body of considerable size and weight, occupying the transverse colon. This body, on its withdrawal from the intestine, proved to be a substantial metallic case, of cylindrical form, enveloped in a piece of bladder, and possessing a conical extremity, which pointed upwards—i. e., towards the cæcum. When stripped of its covering, the cylinder, which weighed 1 lb. 5 oz., was found to be a case or tube, in hammered iron, closed at one end, and provided with a cover at the other, six inches and a quarter in length, and two in diameter. Within were found an iron tube, part of a gun-barrel, four inches long; an iron screw and nut; a turn-screw; two small saws, one for wood, the other for cutting metal; the drill of a centre-bit; a file; a piece of two francs, and four pieces of one franc, together with a lump of grease—a complete thief's arsenal. On a closer examination, it was found that these instruments, united by means of the nut and screw, could be made to form a powerful lever, capable of wrenching asunder the bars of a window-grating, and thus affording the means of escape. Thanks, no doubt, to the possession of this portable "jemmy," this very convict had, on a former occasion, and when imprisoned in the gaol at Brest, been enabled to gain his liberty. The medical interest of the case lies, of course, entirely in the acquired tolerance of the rectum for so enormous a suppository, and in the manner in which this capacious iron cylinder had travelled along the intestine, up-stream, and against the perisaltic current, and rounded the corner of the transverse colon, in spite of the gaseous distension and muscular opposition. According to the experience of the turnkeys of Vannes, the concealment of contraband articles, by insertion into the rectum, is almost universal amongst the convicts, and the little conical boxes, carried for the purpose by the galley-slaves, are commonly known amongst themselves as "necessaires."

Baron de Watteville, Inspector-General of Charitable Institutions in France, has just addressed to the Minister of the Interior a report of the condition of the deaf, dumb and blind actually under treatment in the Government establishments, as also upon the system followed in the special schools devoted to their education. From this document it appears that the number of the deaf and dumb in France is 21,576; of whom 12,325 are males, and 9,251 females. The number of blind persons is 30,214; and of these 16,479 are males, and 13,645 females—a proportion painfully in favor of males.

M. Trouseeau has, from his reprobation of the employment of the waters of Vichy in the treatment of gout, raised the ire of the medical men attached to that thermal source; and M. Durand-Fardel, no mean authority on the subject, has published the first of a series of letters in reply to the objections of the Professor of the Hotel Dieu. When the correspondence has come to a termination, I will give your readers a digest of the polemic. The Emperor, who does not at all events entertain the same opinion as M. Trousseau, is about to repair to Vichy as soon as the Midsummer holidays begin. He suffers, I understand, from suppressed gout, and this year exchanges Plombieres for Vichy.

M. Becquerel has just published the results of certain experiments instituted by himself for the purpose of ascertaining the effects produced by the presence of forests on the temperature of the surrounding country. He has found that trees heated during the day by the sun's action, and cooling during the night under the influence of nocturnal radiation, gives rise first to an ascending current of hot air, and secondly, to a descending current of cold air, which lowers the temperature of the surrounding soil during the night and morning. This result, according to M. Becquerel, proves why in the vicinity of a forest the temperature is lower than in an open plain. The cutting of timber in any great quantities would consequently have the effect of rendering the summers warmer and the winters less cold, by procuring the removal of a cause producing a like diminution of temperature in either season.

The weather has been comparatively cold for the last four days, the sudden change of temperature having been followed by the appearance at the hospital of many cases of acute pneumonia.

M. Alphonse Guerin has commenced, at the Hopital de Lourcine, his first course of lectures on "Venereal Disease in the Female, and more especially affecting the sexual organs." The lecturer is thoroughly master of his subject, and possessed of all those qualities requisite for imparting his information to others. I should strongly recommend this course, which is, I need hardly say, gratuitous, to any of your readers likely to visit Paris during the summer.

M. Sales-Girons, the zealous promoter of a new method for the treatment of pulmonary complaints by the inhalation of minutely subdivided, or as the technical expression is, "pulverized" liquids, does not seem to have it all his own way. Not only does his original opponent on this question, M. Champouillon, of the Val-de-Grace, hold his ground very firmly, but now other two and equally redoubtable antagonists appear in the field. MM. Pietra-Santa and Rene Brian, armed with weapons of a formidable nature in the shape of facts deduced from experiment, bid fair to overthrow the somewhat hasty conclusions of M. Sales-Girons, and to crush the nascent popularity of his "pulverizing" machine. A memoir of Dr. Pietra-Santa, just published, details the particulars of a course of investigation, conducted with impartiality as it would appear, and wholly with the view of ascertaining the practical value of this *soi-disant* addition to therapeutics. The facts detailed in this paper seem to afford very decided answers to the three following important ques ions: 1st. Whether the pulverization of a mineral water does or does not affect the integrity of its chemical ingredients? Next, whether the particles of subdivided water do or do not penetrate into the bronchi? And thirdly, whether the precise therapeutic effects of this new system of inhalation, supposing such to exist, admit of graduation? M. Pietra-Santa commenced his experiments at the Eaux-bonnes, and ascertained that during the process of pulverization, the water of all that thermal source speedily lost all its sulphuretted hydrogen, as well as the greater part of its sulphuret of sodium, sustaining, at the same time a diminution of temperature varying from 25° to 30° Fahr. The mineral ingredients which predominate in the waters of the Eaux-bonnes are the sulphuret and chloride of sodium, and the addition of a solution of nitrate of silver occasions in them a copious precipitate of the white chloride and black sulphuret of silver. A similar reaction also takes place in the urine of patients drinking even small quantities of this water; but no such chemical changes have been obtained by similar treatment of the urine of persons who have inhaled only the pulverized fluid; the last fact proving either that none had penetrated into the bronchi, or else that absorption by the pulmonary mucous membrane had not occurred. Furthermore, from observation of the comparative results obtained by inhalation and by external administration, (by drinking,) it was apparent that the therapeutic effect had, in the former case, been negative or imperceptible, and in the latter positively beneficial. M. Brian, who equally contests the validity of M. Sales-Giron's method, has published, in the *Gazette Hebdomadaire*, a series of observations, both clinical and experimental, in connexion with the subject, and his evidence is even more conclusive than that of his *collaborateur*. "The air tubes," says this physiologist, "are organized exclusively for the passage of air, and whatever else enters the lung, in howsoever small a quantity it be, that foreign element acts as an irritant, and produces cough. If, consequently, the smallest particle of medicated fluid does by chance reach the bronchi, a spasmodic and expulsive effort is most certain to ensue." In order to procure a practical solution of the doubt, M. Brian performed the following experiment in the laboratory of the College of France, in the presence of MM. Claude Bernard, Vella and Lecomte. He caused a small dog to inhale, during the space of half an hour, a solution of perchloride of iron in water pulverized *secundum artem*. At the expiration of the period, the animal was pithed, and its respiratory organs were carefully removed from the body, and some of the larger air-passages laid open. The mucous membranes of the larynx, trachea, and bronchi were then brushed over with a solution of cyanide of potassium, and the reagent was kept in contact with the tissue for the space of a quarter of an hour, without the production of a change of color. The same test applied to the mucous lining of the mouth, fauces, and nasal cavities, evinced, by the production of a well-marked blue color, the presence of a certain quantity of perchloride of iron, sufficiently proving that the pulverized fluid had never reached the special air-passage. Two similar experiments, one on a large dog, the other on a horse, were productive of like negative results. Not less conclusive than the foregoing is M. Champouillon's clinical test. This practitioner selected from his wards a man suffering from catarrhal bronchitis; he subjected this patient to a half hour's inhalation of a similarly charged solution, and after a preliminary rinsing of the mouth, tested with care the first expectorations, none of which gave the slightest indications of the presence of the perchloride; all of which form tolerably convincing proofs of the inutility of this much-vaunted method. I have been more prolix on this subject than may seem justifiable, but believing that to the discovery of a truth the detection of what is untrue ranks second only in a scientific point of view, I have been led to give your readers all the leading features of the adverse evidence.

At the Academy of Medicine last Tuesday, M. Littre read a paper "On the Antiquity of Diphtheritic Epidemics," and made out a title of priority very decidedly in favor of Hippocrates. "In the sixth book of the 'Epidemics,' we read," says M. Littre, "the description of an epidemic, that of Periathos, characterized by symptoms of cough, sore-throat, nyctalopia and paralysis, all of them elements of the diphtheritic affection, and admitting of classification under no other general head." What, then, had become of the "Boulogne sore-throat" during the twenty-two centuries which have elapsed since its first recorded appearance?

M. Mathieu, the instrument-maker, presented at the same meeting a handle for facilitating the action of the chain-saw. The instrument is simple enough, and somewhat resembles a drill-bow. The saw, fitted with a hook at either extremity, can be fixed, when required for use, to each end of the blade or stalk of the *porte-scie*, as it is called, and worked with one hand instead of two, as is the usual method.

A paper communicated by M. Hippolyte Larrey to the Society of Surgery last week, contains some interesting statistics relative to the success of the various operations undertaken for the extraction of false cartilages in or about the knee joint. The list takes a wide sweep, reaching from the days of Ambrose Pare down to our own time. M. Larrey's original object (if I recollect rightly) in collecting these cases was to aid an American surgeon, Mr. Squire by name, in his defence against a charge of malapraxis brought against him by a patient. The latter had been operated on by Mr. Squire, and an anchylosis of the knee-joint had been the result of the operation. As M. Larrey had, in 1832, written a thesis on the subject, our American *confrere* selected him as the umpire on the question. What the upshot of the trial may have been I know not, but the fruits of M. Larrey's researches are certainly worth presenting to your readers. Out of a total of 158 cases of extraction, 129 were by direct incision, and 38 by indirect or subcutaneous method. The results stand thus:

No. of Cases.	Cured.	Failures.	Deaths.
129	98	5	28
38	19	15	5

The extraction of false cartilages of the knee-joint is, according to M. Larrey, a grave operation when practiced by direct incision, and difficult when by the subcutaneous method. The dangers resulting from the presence of the foreign body are much less to be dreaded than those to be apprehended from the operation; and though, no doubt, as seen by the above figures, a large proportion of cures has been registered, many failures have been passed over in silence, and not boasted of. The operation should never be performed unless the following conditions be realized:—

1. Complete mobility of the false cartilage.
2. Presence of pain, effusion into the joint, lameness, and other ill effects resulting from its presence in the articular cavity.
3. Failure of palliative measures.
4. Express desire of the patient to undergo an operation after all its dangers and difficulties have been fully explained.

The subject proposed for next year's prize by the Medical Society of Toulouse, is "A Practical Exposition of those Diseases in which Arsenical Preparations are really of Service."

The *Bordeaux Journal of Medicine* contains an article in which the efficacy of cutaneous cauterization by strong sulphuric acid, as originally proposed and practiced by M. Legroux, of the Hotel Dieu, is spoken of in high terms. Out of ten cases, seven of which were sciatica in which this agent was employed, nine perfect cures were achieved, the beneficial effects being, for the most part, instantaneous. The affections thus treated had already resisted all the modes of medication usually resorted to in desperate cases, such as sulphur baths, douches, blisters, iodide of potassium, subcutaneous injections, &c.

M. Rilliet, of Geneva, died a few days ago—very unexpectedly it would appear. His death was announced at the Academy of Medicine on Tuesday, when it was stated that, after complaining of a violent pain in the shoulder (possibly the bursting of an aneurism), he suddenly expired. Your readers will probably remember his celebrated paper on "On Iodism," the discussion on which, at the Paris Academy, lasted for two or three months.

A naval surgeon of eminence, M. Dutroulau, has just published a volume which, so far as I have yet been able to judge, seems a very worthy pendant of Johnson and Martin's well-known work. The "Treatise on the Diseases of Europeans in Hot Countries" is the result of many years' residence in the equatorial colonies of France, and the intelligence of an experienced man long placed in a position so favorable to the observation of disease is well worthy of attention. The book is divided into two parts; the one treating of morbific causes, the climate more especially; the other devoted to pathology and morbid expression. In the geographical classification of disease, the author mentions that each division of country has its peculiar type. In Senegal and Martinique the commonest endemic affections are dysentery and liver complaint; whereas, at Cayenne and in Madagascar the prominent diseases are those of a miasmatic origin. "Wherever," continues M. Dutroulau, "the land is swampy, ill-drained, and at the same time lying low and protected from winds, there you get malaria." Cholera and yellow fever will in the tropics be found to frequent the sea-coast; whilst hepatatis and dysentery show a decided preference for the loftier ranges of volcanic formation which abound in running water and cooling breezes. Fever of a typhoid nature does not, it would appear, occur endemically in the tropics: and when accidentally the arrival of an infected crew has occasioned an outbreak in a colonial seaport, the type of the epidemic has always been of a milder character than is usually noticed in Europe. This immunity must be attributed to the mode of life and to the system of free ventilation prevalent in those climates. An interesting fact condemnatory of M. Piorry's doctrine regarding the part played by the spleen in the production of ague is recorded in this work—namely, that the peculiar pathological condition of this organ frequently witnessed as the result of repeated attacks of intermittent fever—the ague-cake, in fact—is far less common in the severe type witnessed in the tropics than in the milder form common in more temperate climates. In twenty per cent. of the cases noted the lesion of the spleen did not exist. M. Dutroulau admits two great divisions of intermittents—the simple and the pernicious variety, both requiring treatment by quinine, and by quinine alone, no other drug being an effective substitute for this alkaloid. In the chapter which treats of continued fevers, the author has some just remarks upon the abuses of bleeding in hot countries, and qualifies the lancet as a "terrible weapon in the tropics, where inflammatory affections exist (for the most part) in appearance only." Before leaving this interesting work, I must refer to a circumstance mentioned by the author of which I confess I was totally ignorant—namely, the extreme prevalence of phthisis in the French colonies; so much, so, indeed, that at Cayenne no less than one-fifth of the Creole population yearly fall victims to some form or other of our too familiar European scourge. This fact no doubt in some measure explains and justifies the popular indignation which prevailed in France during the early years of the present reign, when transportation to this unhealthy climate was a punishment very commonly awarded to political offenders.

The above mention of venesection and its abuses reminds me of a subject on which I believe a somewhat false impression exists at present in England —namely, the extent to which bleeding is practised in Italy. Count Cavour was bled seven times, it is said, and he sank: he was bled, no doubt, to death. Setting aside the point of propriety or malapraxis—a question, by the way, not easy to decide—it is probable that in all those six or seven bleedings the whole quantity of blood lost did not amount to thirty ounces; a supposition rendered all the more likely by the fact that the illustrious statesman, in accordance with the old Italian custom, was in the habit of being let blood on certain occasions. Now, by the old Italian custom, as still practised in the southern districts of the Peninsula, is not implied an heroic abstraction of sixteen, twenty, or an indefinite number of ounces of the vital fluid, "usque ad deliquium," with instructions for repetition "ad libitum." An average bleeding at the hand of the "salassatore," or licensed Italian phlebotomist, is a quantity varying from three to four ounces— an habitual bleeder (in the passive sense) would rarely pass the latter quantity; and Count Cavour, as has been publicly stated, was, to within a very few hours of his death, his own physician, dictating the treatment he wished to undergo to a young practitioner, who blindly followed the injunctions given.

All those of your readers who have witnessed the fatal rapidity of the "perniciosa" fever will readily understand that in the nature of the disease itself may be found ample explanation as to the cause of death, without recourse being had to the alleged exhaustion of bleeding. I am anxious, as you see, to exonerate young Italy from the imputation of parricide.

At the Academy of Medicine on Tuesday, M. Charles Robin read a report upon a subject concerning which has been said and written of late—namely chromydrosis, or blue sweat. Despite the hints and shrugs of the sceptics, who had long pooh-poohed the accounts of strangely colored cutaneous exudation or secretion, M. Robin went to work in a matter-of-fact way, and has arrived at a positive conclusion on the subject to wit, that the substance said to have exuded from the skin of a patient, and presented for analysis by Dr. Leroy de Mericourt, much resembles the blue coloring matter of certain urine, and may be unquestionably pronounced to be a pathological product, and eliminated in the manner alleged.

At the same sitting of the Academy, M. Lefort, a chemist, and candidate for one of the vacant places, read a paper on the different tests for morphia. The essence of his communication amounted to the following: 1. That the salts of sesquioxyde of iron are very certain and reliable tests for the discovery of morphia, but only when the alkaloid is in a solid form or in a concentrated solution. 2. That iodic acid alone is not a certain test for morphia, unless ammonia be likewise used, and then the alkaloid may be detected in a liquid which contains only a 10,000th part in solution. 3. That morphia taken continuously, whether in small or large doses, may be found in the urine but not in the perspiration.

LIVERPOOL (England) affords one of the most striking examples of the benefits of a sanitary police on record. In 1847, when the Public Health Act first went into operation, this city was the most unhealthy in England, the rate of mortality being 1 in 30 of its inhabitants. Since that date the town has been under a thorough sanitary surveillance; it has expended upwards of $10,000,000 in improvements directed by its health authorities, and the most beneficial results now begin to appear. Dr. Duncan, the medical officer of health, has just issued his annual report, from which it appears that the rate of deaths was 1 in 41, representing for last year alone a saving of not less than 3,800 lives; or about 5 lives in every 1,000 were saved. If typhus had been as fatal in Liverpool last year as formerly, there would have been 900 deaths from this disease alone; but there were only 359. There were 8 deaths from small-pox during the year, and not more than 11 had been recorded since May, 1859. What a striking contrast does Liverpool now present to New York, which, for the week ending June 29, reported 30 deaths by small-pox. These two cities illustrate forcibly the importance of proper health regulations and qualified officers; the former, under its energetic Board of Health, is becoming one of the healthiest cities in England; the latter, destitute of a sanitary police, is rapidly sinking to the level of the unhealthiest cities on the globe.—*Am. Medical Times.*

DEATH OF FRORIEP.—Dr. Froriep, well known as professor at Jena and Berlin, and who has largely contributed to medical periodical literature, has just died, at Weimar, of apoplexy.

On Some Effects of Reflex Nervous Irritation Produced by Syphilitic Disease of the Bones of the Skull.

HENRY LEE, Esq., Surgeon to King's College Hospital, &c., London, presented a paper with the above caption to the Royal Medical and Chirurgical Society at the July meeting of that body.

This paper was a continuation of one which the author laid before the society during the last session. The particulars of three cases were then related, in which extensive and persistent ulcerations had occurred in different parts of the body. These ulcerations were accompanied, in the first case, with deafness and impaired voluntary power; in the second, with fits of long-continued spasm of some of the muscles of the face and body; in the third with delirium and coma.

In one case the ulceration had existed for a period of six years, and had destroyed the left eye and left nostril; and in another the ulceration had continued for a period of eight years, and had involved the whole of the skin of the right arm.

In addition to the above cases, the author referred to two other instances in which disease in the bones of the skull had produced marked nervous symptoms; and in one of these persistent and long-continued ulcerations had been present. The author remarked that a state of chronic spasm may be produced in bloodvessels as well as in muscles by nervous irritation; and the post-mortem examination of two of the above cases showed the irritation to have originated in the bones of the skull at a distance from the origin of any of the motor nerves, and he therefore concluded that, as the parts of the base of the brain were healthy, the nervous irritation (shown in different ways in different cases) depended upon reflex action. The same action which would produce spasm of the muscles at one time might produce spasm of the bloodvessels at another, and thus interfere with the process of nutrition. To this cause the author attributed the ulcerations in the above-named cases.

The details of two post-mortem examinations were particularly insisted upon. In both of these, the inner table of the skull had been extensively diseased, and had been the cause of disease of the dura mater. In both cases, the parts at the base of the brain were entirely free from disease; and it was particularly noticed, that in those situations where the diseased internal table had been removed (in one case artificially), the membranes of the brain were healthy; but in those parts where the diseased bone remained, that the bones were also diseased. The conclusion drawn by the author was that where portions of bone were exposed by disease, the external and middle tables might be removed by the trephine without any danger; and that where the internal table was diseased, and the locality of that disease was indicated, which it might be, by the exposed external table, then the whole thickness of the skull might be removed by the trephine. This operation of removing the whole thickness of the skull had been performed by the author now in six cases. In three of these, the symptoms for which the operation were performed was decidedly relieved; in two, there was less decided benefit; and in none did the operation cause any fresh complications. In five out of these six cases, the external table was denuded and diseased, and served as a guide to the exact locality of he disease of the internal table.

The following case was related by Mr. Lee, the patient having been sent to him by Dr. Edmunds, of Spital-square, a few hours only before the meeting of the society: A man, twenty-five years of age, had an indurated chancre four years ago. He was not attended at the time by any surgeon; but was subsequently treated, but without attending regularly, by iodide of potash. He took no mercury until after the appearance of the following symptoms: Eighteen months ago a large swelling appeared over the left parietal bone. This was accompanied by considerable pain. In September last he was "took all at once" with a kind of fit, which lasted an hour. After this had subsided, the pain in the head continued for a considerable period worse than before. During this fit he lost his senses; but he has had several fits since, and has always retained his consciousness. The fits begin with a kind of "trembling pain" in the left shoulder, and this sensation gradually extends down to the tips of the fingers. The muscles in the hand and arm become quite stiff. After about a quarter of an hour the fit ceases, and leaves a dreadful "heavy pain" in the head, particularly at the top. This pain sometimes lasts for two or three days, and during its continuance he is conscious of what is going on, but "feels staggering" with a continual inclination, if on his legs, to press forward. Can speak during the fits, but feels little disposition to do so. He never passes more than a month or five weeks without being in bed for two or three days with pain in the head. On one occasion he had "cramp in the lower jaw," and "felt as if the skin was set." Before the pain comes on he hears a noise in his ears like the tramping of soldiers. He can place his finger upon the spot where he feels most pain—at the upper part of the parietal bone, a little to the left side. He remembers having had five distinct fits independent of the periodical attacks of pain. During the occurrence of these fits, the fingers of the left hand turn pale, and remain so for two or three hours. None of the other limbs are ever affected.

The author remarked that in this case, as in those to which he had referred in his paper, there was, during the occurring of the fits, an affection of the muscles of one particular limb and of the bloodvessels of the same part, as indicated by the bloodless condition of the skin. The seat of disease, as indicated by the pain, was at the top of the head, and unconnected with the origin of any motor nerves; and he therefore concluded that this, like the other cases contained in the paper, was an instance in which irritation of the dura matter by disease of the bone had by reflex action produced the symptoms which had been described.

Dr. Edmunds stated that the last case to which Mr. Lee had referred had come under his care. The patient had originally been the subject of Hunterian chancre, and had come to him afterwards for swelling of the glands, for which he had prescribed iodide of potassium. He had subsequently presented himself with a painful swelling of the parietal bone, tumor of the tibia, &c. Twelve months afterwards fits came on. —*Lancet.*

Madame Cabel and her Physician.—An action was very recently brought in Paris, by a Dr. Gregoire, against Madame Cabel, the celebrated singer, to obtain from her the payment of 4,850 francs for medical attendance from 1858 to 1861. Madame Cabel resisted the claim, on the ground that Dr. Gregoire was not qualified to practice in France; that she had employed him as an agent, not as a physician, and had lent him money. In support of the claim it was stated, that when, some years ago, she was without bread and without employment, he had attended her gratuitously; and letters were produced with the view of proving that medical services had actually been rendered as stated. The tribunal gave a decision in favor of the physician, but reduced his claim to 1,000 francs.—*Ib.*

THE FUTURE OF SYPHILIZATION.—Hotly-contested questions in science are precisely those as to which we may be the more hopeful of knowing the truth. Friction engenders heat, but it removes superficial lacquer. Opposing theorists handle each other roughly, but preserve the jewel of truth for us. Few propositions have been most fervently advocated, more loudly vaunted, or more positively depreciated than the alleged benefits conferred on humanity by the introduction of syphilization as a means of treatment for constitutional syphilis. For a moment you are startled and dazzled by the brilliant experience and auspicious prophecies of its first introducers; subsequently it has fallen into utter discredit. It still, however, has a few advocates, among whom is Professor Boeck, of Norway, who has from time to time published his views on the subject, and has recently issued a pamphlet at Chris iana "On the Actual Position and Statistics of Syphilization," in which he narrates his ripest experience. Professor Boeck considers that he has proved that syphilization cures constitutional syphilis when not treated with mercurials; that relapses are very rare; and that individuals treated by syphilization are always in excellent health. He believes that he has arrived at the power of applying this process with the greatest certainty, owing to a systematic method of inoculation; there are no accidents, and the syphilitic symptoms disappear almost without exception. He agrees that syphilization ought never to be employed except in individuals who are suffering from constitutional syphilis, and have not been treated by mercurials. As the result of the experience which he has had, he does not hesitate to affirm that by the application of this discovery to the cure of constistutional syphilis, a great benefit has been rendered to humanity. These opinions M. Boeck supports by an appeal to 300 cases treated in the Norwegian hospitals, and as to which he furnishes full tabular details. Three hundred individuals were thus treated by syphilization. Ten relapses at the most occurred; all the rest were cured. How, then, says M. Boeck, is it proposed to annul 300 facts by phrases? Thus he throws down the glove to our syphilographers; and no doubt some one will be found sufficiently hardy to undertake the task which M. Boeck thinks so difficult. It is a great question, and one which demands a most careful and deliberate solution.—*London Lancet.*

SOLDIERS' SORE MOUTH.—In a letter to the *American Journal of Sciences and Arts*, Mr. Jerome Nickles states that a prize has been decreed by the French Academy of Science "to Bergeron for his treatise upon *stomatile aucereuse des soldats* (soldier's sore mouth.) This is a contagious disease which may be reproduced with some modifications by inoculation; this the author proved upon himself. According to documents collected by him it appears to be demonstrated that the appearance of ulcerated mouth was epidemic in the French army near the end of the eighteenth century. It happened that of all the great armies of Europe, those of Portugal and Belgium, together with the French army, were the only ones in which this disease was observed in the form of an epidemic. The crowding of soldiers in the camp, in the barracks, and in the body guard, appears to have been the principal cause of the development and propagation of this affection. Bergeron has introduced the chlorate of potassa in the treatment of this malady. This method shortens the period of the disease, and if employed in the commencement it frequently obviates the necessity of sending the soldier to the hospital." *Dental Cosmos.*

SURGICAL INSTRUMENTS FOR 1861.—The Surgical Instrument Committee of the Society of Arts appointed last year for the purpose of drawing up a list of instruments and apparatus employed in the investigation of disease, have accomplished the greatest part of their somewhat tedious and difficult task. The number and complixity of the apparatus and instruments now at the command of the physician and surgeon are surprising. Their name is legion; the ingenuity of their construction is in many cases admirable; and in analyzing, classifying, and completely cataloguing our modern *armamenta* this committee will render a veritable service to the profession.

The difficulties of concise classification arise not less out of the great number and diversity of the instruments than the ingenuity required to indicate separately a great variety of instruments resembling each other in many respects, and each having nevertheless certain peculiar uses. The sub-committee for general surgery laid down as a general rule, that no proper names should be associated with instruments presenting mere differences of mechanical details, but only in their representing a new or improved principle. This rule it has been found very difficult to observe strictly; for the reporter, Mr. J. R. Traer, has found it almost impossible to convey the idea of an instrument apart from the name ordinarily connected with it, except by means of a sketch or minute description, neither of which is admissible in a skeleton catalogue. He remarks also, that the practical utility of a catalogue, as a means of reference in testing the value of any future improvement or invention, would be almost annihilated if it did not possess more detail than would result from the mere mention of the principles involved in the construction and application of any given instrument.

The list is not yet completed; but when fully revised it will constitute a a valuable aid to the surgeon and physician, who will see at once by reference to it what mechanical resources his science already possesses for the treatment of any given disease; and will not only find frequent help from the devices described, but will sometimes be saved from wasting ingenuity in the construction of supposed novelties, in which he has, in fact, been anticipated by others.—*London Lancet.*

THE BITE OF RABID ANIMALS NOT ALWAYS FOLLOWED BY HYDROPHOBIA.—A fact well worthy of notice is mentioned in the last annual statistics furnished by the General Hospital of Vienna. It would appear that out of 115 persons bitten by animals whose rabid state was clearly made out, only 25 died from hydrophobia. As, however, the actual and precise length of the period of incubation in rabies is not known, these figures cannot be completely relied upon; but it is highly useful to note the comparatively small proportion of deaths which occurred, after the well-ascertained inoculation with the poison.

ETHNOLOGY.—The students of ethnology will be happy to hear that M. Van der Heeven has lately sent to the Academy of Sciences of Paris a catalogue of his collection of crania, illustrating the varieties of the human race. This collection forms a portion of the Museum of the University of Leyden. We have no doubt but such ethnologists who may this summer pass through Holland will make a point of viewing this collection.

Directions to Army Surgeons on the Field of Battle.

1. WATER being of the utmost importance to wounded men, care should be taken, when before the enemy, not only that the barrels attached to the conveyance carts are properly filled with good water, but that skins for holding water, or such other means as are commonly used in the country for carrying it, should be procured and duly filled.

2. Bandages or rollers, applied on the field of battle, are, in general, so many things wasted, as they become dirty and stiff, and are usually cut away and destroyed, without having been really useful; they are therefore not forthcoming when required, and would be of no use.

3. Simple gunshot wounds require nothing more for the first two or three days than the application of a piece of wet or oiled linen, fastened on with a strip of sticking plaster, or, if possible, kept constantly wet and cold with water. When cold disagrees, warm water should be substituted.

4. Wounds made by swords, sabres, or other sharp-cutting instruments, are to be treated principally by position. Thus, a cut down to the bone, across the thick part of the arm, immediately below the shoulder, is to be treated by raising the arm to or above a right angle with the body, in which position it is to be retained, however inconvenient it may be. Ligatures may be inserted, but through the skin only. If the throat be cut across in front, any great vessels should be tied, and the oozing stopped by a sponge. After a few hours, when the oozing is arrested, the sponge should be removed, and the head brought toward the chest, and retained in that position without ligatures; if this is done too soon, the sufferer may possibly be suffocated by the infiltration of blood into the areolar tissue of the parts adjacent.

5. If the cavity of the chest is opened into by a sword or lance, it is of the utmost importance that the wound in the skin should be effectively closed, and this can only be done by sewing it up as a tailor or lady would sew up a seam, skin only being included; a compress of lint should be applied over the stitches, fastening on by sticking plaster. The patient is then to be placed on the wounded side, that the lung may fall down, if it can, upon or apply itself to the wounded part, and adhere to it, by which happy and hoped-for accident life will in all probability be preserved. If the lung should be seen protruding in the wound, it should not be returned beyond the level of the ribs, but be covered over by the external parts.

6. It is advisable to encourage previously the discharge of blood from cavity of the chest, if any have fallen into it; but if the bleeding from within should continue, so as to place the life of the sufferer in danger, the external wounds should be closed, and events awaited.

7. When it is doubtful whether the bleeding proceeds from the cavity of the chest or from the intescostal artery, an incision through the skin and the internal intercostal muscle will expose the artery close to the edge of the rib, having the internal intercostal muscle behind it. The vessel thus exposed may be tied, or the end pinched by the forceps, until it ceases to bleed. Tying a string round the ribs is a destructive piece of cruelty, and the plugs, &c., formerly recommended, may be considered as surgical incongruities.

8. A gunshot wound in the chest cannot close by adhesion, and must remain open. The position of the sufferer should therefore be that which is most comfortable to him. A small hole penetrating the cavity is more dangerous than a large one, and the wound is less dangerous if the ball goes

through the body. The wounds should be examined, and enlarged if necessary, in order to remove all extraneons substances, even if they should be seen to stick on the surface of the lungs; the opening should be covered with soft oiled or wet lint—a bandage when agreeable. The ear of the surgeon and the stethoscope are invaluable aids, and ought always to be in use; indeed, no injury to the chest can be scientifically treated without them.

9. Incised and gunshot wounds of the abdomen are to be treated in *nearly* a similar manner; the position in both being that which is most agreeable to the patient, the parts being relaxed.

10. In wounds of the bladder, an elastic catheter is generally necessary. If it cannot be passed, an opening should be made in the perinæum for the evacuation of the urine, with as little delay as possible.

11. In gunshot fractures of the skull, the loose broken pieces of bone, and all extraneous substances are to be removed as soon as possible, and depressed fractures of bone are to be raised. A deep cut made by a heavy sword through the bone into the brain, generally causes a considerable depression of the inner table of the bone, while the outer may appear to be merely divided.

12. An arm is rarely to be amputated, except from the effects of a cannon shot. The head of the bone is to be sawn off, if necessary. The elbow-joint is to be cut out, if destroyed, and the sufferer, in either case, may have a very useful arm.

13. In a case of gunshot fracture of the upper arm, in which the bone is much splintered, incisions are to be made for the removal of all the broken pieces which it is feasible to take away; the elbow is to be supported; the forearm is to be treated in a similar manner; the splints used should be solid.

14. The hand is never to be amputated, unless all or nearly all its parts are destroyed. Different bones of it and of the wrist are to be removed when irrecoverably injured, with or without the metacarpal bones and fingers or the thumb; but a finger and one thumb should always be preserved when possible.

15. The head of the thigh-bone should be sawn off if broken by a musket ball. Amputation at the hip-joint should only be done when the fracture extends some distance into the shaft, or the limb is destroyed by cannon-shot.

16. The knee-joint should be cut when irrecoverably injured; but the limb is not to be amputated until it cannot be avoided.

17. A gunshot fracture of the middle of the thigh, attended by great splintering, is a case for amputation. In less difficult cases, the splinters should be removed by incisions, particularly when they can be made on the upper or outer side of the thigh. The limb should be placed on a straight, firm splint. A broken thigh does not admit of much, and sometimes of no extensions without an unadvisable increase of suffering. An inch or two of shortening in the thigh does not so materially interfere with progression as to make the sufferer regret having escaped amputation.

18. A leg injured below the knee should rarely be amputated in the first instance, unless from the effects of a cannon-shot. The splinters of bone are all to be immediately removed by saw or forceps, after due incisions. The limb should be placed in iron splints, and hung on a permanent frame, as affording the greatest comfort and probable chance of ultimate success.

19 An ankle-joint is to be cut out, unless the tendons around are too much injured, and so are the tarsal and metatarsal bones and toes. Incisions

have hitherto been too little employed in the early treatment of these injuries of the foot for the removal of extraneous substances.

20. A wound in the principal part of the thigh, in addition to a gunshot fracture, renders immediate amputation necessary. In *no other part* of the body is amputation to be done in the first instance for such injury. Ligatures are to be placed on the wounded artery; one above, the other below the wound, and events awaited.

21. The occurrence of mortification in any of these cases will be known by the change of color in the skin. It will rarely occur in the upper extremity, but will frequently do so in the lower. When about to take place, the color of the skin of the foot changes from the natural flesh color to a tallowy or mottled white. Amputation should be performed immediately above the fractured part. The mortification is yet local.

22. When this discoloration has not been observed, and the part shrinks or gangrene has set in with more marked appearances, but yet seems to have stopped at the ankle, delay is, perhaps admissible, but if it should again spread, or its cessation be doubtful, amputation should take place forthwith, although under less favorable circumstances. The mortification is becoming or has become constitutional.

23. Bleeding, to the loss of life, is not a common occurrence in gunshot wounds, although many do bleed considerably, seldom, however, requiring the application of a tourniquet as a matter of necessity, although frequently as one of precaution.

24. When the great artery of the thigh is wounded (not torn across), the bone being uninjured, the sufferer will probably bleed to death, unless aid be afforded, by making compression above and on the bleeding part. A long, but not broad, stone, tied sharply on with a handkerchief, will often suffice until assistance can be obtained, when both ends of the divided or wounded artery are to be secured by ligatures.

25. The upper end of the great artery of the thigh bleeds scarlet blood; the lower and dark venous-colored blood; and this is not departed from in a case of accidental injury, unless there have been previous disease in the limb. A knowledge of this fact or circumstance, which continues for several days, will prevent a mistake at the moment of injury, and at a subsequent period, if secondary hemorrhage should occur. In the upper extremity both ends of the principal artery bleed scarlet blood, from the free collateral circulation and from the anatosmoses in the hand.

26. From this cause, mortification rarely takes place after a wound of the principal artery of the arm, or even of the arm-pit. It frequently follows a wound of the principal artery in the upper, middle, or even lower parts of the thigh, rendering amputation necessary.

27. It is a great question, when the bone is uninjured, where and at what part the amputation should be performed. Mortification of the foot and leg, is disposed to stop a little below the knee, if it should not destroy the sufferer; and the operation, if done in the first instance, as soon as the tallowy or mottled appearance of the foot is observed, should be done at that part; the wound of the artery and the operation for securing the vessel above and below the wound being left unheeded. By this proceeding, when successful, the knee-joint is saved, whilst an amputation above the middle of the thigh is always doubtful in its result.

28. When mortification has taken place from any cause, and has been arrested below the knee, and the dead parts show some sign of separation, it is usual to amputate above the knee. But not doing it, but by gradually separating and removing the dead parts, under the use of disinfecting medicaments and fresh air, a good stump may be ultimately made, the knee-joint

and life being preserved, which latter is frequently lost, after amputation, under such circumstances.

29. Hospital gangrene, when it unfortunately occurs, should be considered to be contagious and infectious, and is to be treated locally by destructive remedies, such as nitric acid, and the bivoucking or encamping of the remainder of the wounded, if it can be effected, or their removal to the open air.

30. Poultices have been very often applied in gun-shot wounds, from laziness, or to cover neglect, and should be used as seldom as possible.

31. Chloroform may be administered in all cases of amputation of the upper extremity and below the knee, and in all minor operations; which cases may also be deferred, without disadvantage, until the more serious operations are performed.

32. Amputation of the upper and middle parts of the thigh to be done as soon as possible after the receipt of the injury. The administration of chloroform in them, when there is much prostration, is doubtful, and must be attended to, and observed with great care—the question whether it should or should not be administered in such cases being undecided.

33. If the young surgeon should not feel quite equal to the ready performance of the various operations recommended, many of them requiring great anatomical knowledge and manual dexterity (and it is not expected that he should), he should avail himself of every opportunity which may offer of perfecting his knowledge.

The surgery of the British army should be at the height of the surgery of the metropolis; and the medical officers of that service should recollect that the elevation at which it has arrived has been, on many points, principally due to the labors of their predecessors during the war in the Peninsula. It is expected then, that they will not only correct any errors into which their predecessors may have fallen, but excel them by the additions their opportunities will permit them to make in the improvement of the great art and science of surgery.—*Lancet.*

Starch and Sugar.

Edwin Lankester, M. D., F. R. S., delivered a lecture on Starch and Sugar, at the South Kensington Museum, London, and made use of the following observations:

I have to-day to call your attention to another group of foods. We have spoken first of the saline or mineral substances in food, then of water, and now we come to two groups of substances, the first called combustible, from the fact of their being burned in the system; or carbonaceous, from the fact of their containing large quantities of carbon. The next group are called nitrogenous, because they contain nitrogen.

Now, in this lecture, I shall draw attention to those heat-giving bodies, and may state, in the first place, that the heat we have in the body is precisely the same as the heat which exists independently of the body, having the same nature and the same properties, measured by the same instruments, and producing exactly the same results; therefore, although we call the heat of the body animal heat, it is not at all different from the ordinary heat from a fireplace or lamp. Now, the ordinary heat that we find given out by a fire, or candle, is the result of the union of carbon and hydrogen with the oxygen of the atmosphere. The spirit-lamp will illustrate it as well as anything. I have here a quantity of alcohol, composed chiefly of carbon and hydrogen, and we have two things coming off, the result of the union of carbon and hydrogen with the oxygen of the atmosphere. If I take this cold glass, and put it over the lamp, I collect immediately a vapor, which is the vapor of water. If I take a bottle and put it over, you will find that I shall withdraw the source of the oxygen, and so the lamp will go out. I have here in the bottle the result of the burning of that lamp. There is a little water produced; but I have also carbonic acid gas from the union of the carbon with the oxygen. I have here some lime water, and the lime water when it comes in contact with carbonic acid gas produces a milkiness which is carbonate of lime, showing that I had carbonic acid there. Thus, then, we find, that ordinary combustion, attended by heat, is the result of the union of carbon and hydrogen with oxygen gas, and that the substances formed during this combination are carbonic acid gas and water. Wherever heat is produced upon the surface of the earth, we find that the result is precisely the same process—the union of oxygen with carbon or with hydrogen.

Now, there are some cases in which animal and vegetable matters are exposed to the action of the oxygen of the atmosphere, and the result of the union of the oxygen with the carbon of the animal and vegetable matters is just the same as in the case of the lamp; but in these cases there is no light given out until it attains a temperature of 700° to 800°. When oxygen unites with carbon and hydrogen at a lower temperature than 700°, no light is given out, but heat is generated. Thus, if you take a quantity of decaying vegetable matter in your garden, you get heat developed, which the gardener uses for his cucumber frames; it is an extraordinary fact that the instincts of some animals have guided them to a way to avail themselves of this heat. There is the bush-turkey of Australia which does not make an ordinary comfortable nest, but heaps together the leaves of the forest in a great mass, then deposits her eggs and covers them up with leaves. The leaves give out a certain quantity of heat, which is sufficient to hatch the eggs, and when the young ones are hatched they come out of the heap and walk about. That is just one of the instincts of animals, in availing themselves of the decomposition of vegetable matter in the production of heat. Then occasionally we find vegetable and animal matter catching fire, especially the former. When cotton is heaped together, it frequently catches fire of itself. This spontaneous combustion is frequently a cause of fire. This oxidation also goes on in living plants. A variety of experiments prove that at certain seasons the plant has a temperature higher than the atmosphere. This is especially the case with the plant which is commonly known as "lords and ladies," the botanical name of which is *arum maculatum*.

This plant, if you put the bulb of the thermometer within its bud at the time of opening its flower, will show you that the temperature is much higher; during that time there is a true oxidation of the plant going on, and thus you have heat. Mr. Low, of Nottingham, has performed a very large number of experiments by a very delicate thermometer, and always found that the opening flowers had a higher temperature than the atmosphere. We also find this to be the case with animals; the body of the larger animals is constantly warmer than the surrounding atmosphere, and some of the higher animals, in fact, the majority of them, have a fixed temperature which never changes. Thus it is that man has a fixed temperature under all circumstances. Whether living under the tropical sun of India, America, Africa, or at the Poles, his temperature is always 98° F. There is no departure from this, except in case of disease. This is easily proved by placing the bulb of a thermometer under the tongue; of course the hand is exposed to the atmosphere, and you cannot get it from the hand, and so with the face; but the covered parts of the body always give 98° F. Now this temperature of 98° F. in the human body must be maintained by resources quite independent of the external atmosphere; and these are supplied by the heat-giving food which we take. I have not time to enter fully into the question of how that temperature is maintained; but it is very curious to observe, that whilst we pass from regions where the temperature is 40° below the freezing point, to regions where the temperature rises to above the natural temperature of man, that temperature of 98° F. is maintained in all cases. Now the cause of that is the structure of the skin. The skin is covered over the body in such a way that the evaporation from its surface keeps the body always at the same temperature. If I had a hot vessel here, I could by sprinkling water over it, keep the temperature at a fixed point, because the water, in passing from liquid to vapor, takes up and absorbs a large quantity of heat, and carries it off. So that when we are exposed to warm climates and warm temperatures when the body does not require so large a quantity of heat giving food as it has supplied to it, then the skin throws off the fluid which we call perspiration, and thus the temperature is kept down. It is the skin, then, that regulates the temperature of the body. I now wish to call your attention to those parts of the body by which the heating effect is produced. Our food is first taken into the stomach and digested; it is then taken up out of the stomach and carried by the agency of little vessels, called absorbent vessels, into the blood, and brought into the venous system.

It then passes on to the right side of the heart into the blood-vessels at the side of the body, and thence along the veins into the lungs which lie on each side of the chest. Now, these lungs are so constructed that the blood may be thrown upon the largest possible surface of cells; and, while the blood is in those cells, it is exposed to the action of the atmosphere. Every time we breathe we take in a quantity of air from the atmosphere containing 21 parts of oxygen gas and 70 of nitrogen, and this atmospheric air passes down a tube which is called the trachea, and passes on to the lungs and then to the minute terminus cells; the oxygen gas of the atmosphere now meets the blood which has come from the right side of the heart, and there is a wonderful arrangement made by which the oxygen of the air actually penetrates through the vessels, so that the little blood globules receive oxygen from the outside, without any direct exposure to the air, there being a membrane lying between the blood and the atmosphere, and it is through that membrane that the air penetrates. It is one of the wonderful physical properties of this membrane, that it has the power, when moist, of absorbing the air. The blood has been brought up from the heart, of almost a black color, but no sooner has it penetrated the lungs and been exposed to the oxygen than it becomes bright red. Then it passes back, by means of the veins to the left side of the heart, and from there back to the left auricle, which contracts and sends the blood into the left ventricle, and this contraction sends it into the great aorta which, in the end, distributes the blood into all parts of the system—beating with every pulse of the heart. It now contains the oxygen gas, and when the blood has got to the extremities of these large arteries it goes into a minute kind of vessels which we call capillary vessels, and it is in these vessels that the union of the oxygen and carbon takes place by which the animal heat is produced which we feel all over the body. In every part of the body are these minute vessels distributed, and, whilst we are living, whilst we are thinking, whilst we are acting, whilst we are performing the various functions of life, we are doing so under the agency of this life-giving oxygen. The oxygen and carbon are united, and, just as that lamp has no light without it burns, so we have no life without we burn.

Every part of our body must be thus heated and in a state of combustion, or we die. You saw how that lamp went out when I put something over it. So it would be with any one of us. If I were to put you under that jar for three minutes, you would die as certainly as if you were to be drowned; so, if we hang a man up by a rope round his neck for five minutes, we thus cut off the supply of oxygen—it destroys his life—and that is the way that we judicially dispose of our great criminals.

The oxygen is now united with carbon, and heated the whole body, and produced carbonic acid gas; and now that these little vessels have lost their oxygen, this carbonic acid comes back to the blood, and the blood now goes through these little cavities, coursing its way, until it comes to the right side of the heart once more. It then goes to the lungs, charged with carbonic acid gas at the moment when it take in the oxygen; and this carbonic acid gas goes out of our lungs every time we respire. It is not a very difficult experiment to show this. Here is a vessel filled with air from my lungs instead of with water; and, just as I filled it now from that lamp, when the lamp went out, so I have filled this jar with carbonic acid gas from my lungs; and now in the same way I shall form carbonate of lime by adding lime-water to it. There you see, it is quite milky, just as it was before.

I am not anxious to dwell on the properties of carbonic acid gas, but you see it is a product of combustion. We found that it would not support the life of a lamp. When I covered the lamp it went out, because there was no more free oxygen. Just as the lamp goes out in an atmosphere of carbonic acid gas, just so we go out; and just as this lamp will burn slowly in an atmosphere charged with carbonic acid gas, so do we burn sluggishly in an atmosphere charged with carbonic acid gas. This proves the necessity of getting rid of the carbonic acid gas entirely from our houses, from our sitting rooms, and from our places of assembly; but, above all things, get rid of it from our sitting-rooms and sleeping-rooms, where we spend the larger portion of our lives. I believe there is evidence to show that the want of pure air and the retention of carbonic acid gas, are the great sources of one of our most terrible and afflicting diseases—consumption. The want of a due supply of fresh air, and the want of getting rid of this carbonic acid gas from the house and the lungs, are the greatest sources of this disease. That is a point of great practical importance, to which I call your attention incidentally, for there is no one here who is not interested in that great question. Care should therefore always be taken, and the proper means secured, for letting fresh air into rooms, and carrying off the heated and poisonous carbonic acid gas.—*American Druggists' Circular and Chemical Gazette.*

Emulsion of Wax.—Mr. Alliot proposes the following formula for the emulsion of wax, those given by other writers having failed in his hands:

B Gum Acaciæ,	48	grammes.
Ceræ Flavæ,	48	"
Syrup Simpl.	384	"
Aquæ,	500	"

Melt the wax in a small round dish over a lamp, while the gum is being dissolved in a mortar, in one-half the quantity of syrup, which is then added to the melted wax with brisk trituration, the dish remaining over the lamp in the meantime until the water is well incorporated, when the heat is removed, the rest of syrup added, and finally the water, in portions at a time. —*Repatoire de Pharmacie.*

Battle of Bull Run.

ONE DAY'S EXPERIENCE ON THE BATTLE FIELD.

CAMP PRATT, near Alexandria, VA., July 26, 1861.

I HAVE had no time to write to you before, and I have scarcely the time now, but I have seized a few moments of leisure to give you a brief account of one day's experience upon the field of battle.

At half-past two, Sunday morning, I was in my saddle, with my assistants by my side, and my ambulance was ready for the march. The column began to move at this early hour, but our division, under General Miles, did not leave the encampment until after six o'clock, A.M. We then followed the long train which had preceded us, and after a march of about three miles took up our position where the battle of the preceding Thursday was fought, upon the brow of a hill commanding a view of the whole valley in which lay the forces of the enemy. The 32d and the 16th New York Volunteers were ordered to support Lieut. Pratt's battery, Col. Pratt, of the 31st, acting as Brigadier-General or commanding officer, while Lieut.-Col. Brown took charge of our own regiment, the 31st; subsequently Col. Pratt took charge of his own regiment, and was ordered to support Major Hunt's battery.

As soon as the troops were fairly in position, the batteries opened upon the enemy with shell, solid shot, grape and canister. Their fire was very effective, but it was not answered until late in the afternoon. In the meantime my assistants aided me in selecting a place along the wood in our rear, where a pretty deep cut or gorge, leading a little off the main road, would enable us to dress the wounded without exposure. We all went to work with a will, with the help of the drummer boys, and had soon cleared the gorge of stones and bushes. Here we proposed to have the wounded brought on stretchers by the drummers and a few volunteer aids, who together formed my ambulance corps. We then placed our ambulance above and beyond the gorge, in the direction towards a log-house, which was situated one-quarter of a mile further off in the rear. We took down the fences to let the ambulance pass, and planted our red flags at the temporary depot, and at the log-house. We were all ready, when we received notice of an expected charge of cavalry along that road, and were requested to select a building on the opposite side of the road, as the enemy's batteries would range across the old log-house. Accordingly we hastened to make the change, and in a few minutes we had everything as well arranged in a snug wooden house, occupied by negroes, as if we were in Bellevue. The operating table was ready, the bed arranged, and the instruments, sponges, bandages, cordials, &c., in order.

I now rode back to the field, and found we had had one slight skirmish, in which one man of the 16th had been wounded in the head, which Dr. Crandell, of the 16th, had already dressed. It was past mid-day, and we were all tired, hungry and thirsty. Exploring a garden in front and to the right of the batteries I found cabbages, beets, parsley, onions, sage, and potatoes; near by were chickens, and smoked hams in a deserted lodge. Water we found one-quarter of a mile to the left of the border of the woods, within which lay the enemy, but the drummers brought water, and with the help of Mr. Nourse, Dr. Marvin, and my son, we soon made about four gallons of the best soup I have ever eaten. We had salt and pepper to season it, and good appetites to welcome it. We made also a large coffee-pot full of coffee, and found sugar to sweeten it. This we carried to the rear and fed out first to the Colonel and his staff, and then to the line officers and men, as far as it would go, not forgetting ourselves and the drummer boy.

After this precious repast we carried whiskey to those soldiers who had been skirmishing, or who seemed especially to need it; for they were without shelter, under a sky of brass. To those who called for it we also sent or carried water in pails—such water as we could get. The men never left their lines, except when ordered to act as skirmishers, and must have perished except for some such refreshments.

At about four or five, P. M. a message was sent to us that the enemy were retreating, and that the day was ours, and I immediately returned to my hospital to order, of the black inmates of the south, supper for the Colonel's staff and my own. I was standing at the door, looking out towards the road, when I saw the regiments approaching in order, but rather rapidly; at the same moment came an order from Dr. Woodward, the intelligent and faithful medical director for our division, for me to fall back with my hospital to Centreville, about a mile further back, as the enemy were making an attempt to flank us on the left, in the direction of our division. I immediately had everything replaced in the ambulance, and having paid Maria, the black woman, whose dinner we did not eat, we started for Centreville. We went along the same road with the troops, who were moving in good order, and without any appearance of alarm. At Centreville I took out my amputating case, general operating case, and medicine chest, and finding a large number of wounded already here, proceeded at once to dress their wounds, extract the bullets, &c. We were occupied for an hour or more in an old tavern. My assistants here were Dr. Lucian Damainville (first assistant), Dr. Brown, Mr. Marvine, medical student, Mr. Nourse, and my son Frank, who had been acting most of the day as the Colonel's aid. I think Dr. Arnt, of one of the Michigan regiments, was with us at this time. We had no bandages, no lint, no sponges, no cerate, and but very little water, and I think only one basin. Our first attention was directed to those already in the house. Stooping down as they lay wounded on the floor, we inquired, "Where is your wound, my poor fellow?" for they seldom called us until we came to their relief, nor did many of them utter a moan. There they lay silent, waiting their turn. Most of the wounds were made by spherical balls—some had gone through entirely, without breaking a bone or severing an artery, and to them we said, "Bravo, my boy, a noble wound, but no harm done. Mr. Nourse a cloth, wet with cool water." Not a few encouraged and strengthened by these words, got up and came on foot to Alexandria and Washington. I saw several at Fort Runyon, from whom I had extracted balls from the neck, arms, and legs, the next morning when I had arrived there, they had walked the whole distance. Three or four had balls through their bodies, and had walked two or three miles to the village; one was brought up with a wound in his thigh, who had lain on the field since the Thursday preceding. He will recover, I think.

From this building we went to a private house, which was also full, and then to the old stone church. Here I met Dr. Taylor of the 1st New Jersey Regiment, and Dr. ———, a private, a very intelligent man, belonging, I think to the 2d Michigan, and who, for his extraordinary care and attention, deserves great credit.

In the old stone church the men were lying upon every seat, between all all the seats, and on every foot of the floor; a few on stretchers, perhaps three or four; a dozen or more on blankets—occasionally upon a litter, hay or straw, but mostly on the boards.

The scene here was a little different; it was dark; we had but two or three tallow candles. The men had been waiting longer, and were in general more severely wounded; and, although now and then a man asked us to pass him, and to look after some one one else lying near who was suffering more, yet on all sides we were constantly begged and implored to do something for them. After a little time, we concluded to take them in order as they lay, since to do otherwise rendered it necessary to consume more time in going backwards and forwards, and we were constantly in danger of treading upon the wounded; indeed, it was impossible to avoid doing so. By this time we had found a hospital knapsack, and were pretty well supplied with bandages; but the time did not allow us to do much more at first than to extract the bullets, and apply cool water dressings, with lint.

Only two amputations were made by myself; one below the knee, and one above the elbow-joint. Both of them, I confess, were done very badly, but I could, at the time, and under the circumstances, do no better. My back seemed broken, and my hands were stiff with blood. We had still no sponges, and scarcely more water than was necessary to quench the thirst of the wounded men. My assistants were equally worn out—Dr. Taylor alone seemed vigorous and ready for more toil.

At half-past twelve, or about that time, we went out to get a candle, to amputate a man's arm at the shoulder-joint. Just then a regiment came up, and the Colonel was challenged by the picket. This reminded me that if we were to stay all night, as we had mutually agreed to do, we should need the countersign; but although we told him we were medical men, in charge of the wounded, and intended to stay, this was refused to us. The Colonel told us that his was the last regiment covering the retreat.

We obtained a candle and went to the house where lay Dr. Taylor's patient, with his arm terribly shattered with a cannon-ball or fragment of a shell. It was nearly torn off at the shoulder-joint, but the hemorrhage was trivial. He was dying of the shock. We gave him whiskey, the only stimulant we had, with water, dressed the wound slightly, and left him to his fate.

Dr. Damainville and I now laid down upon our backs beside the wounded —we could do no more—our last candle was burning. Some of us had seen all the wounded, probably 250 in number, and done for them all that lay in our power. I had drunk some buttermilk and eaten a sandwich that Adjutant Washburn had held to my mouth once in the evening, but none of us had had any other food. I had sent Adjutant Washburn to overtake Gen. McDowell early in the evening, and to represent our condition, but he could not find him, and returned without help. The two bottles of whiskey taken by my son from the ambulance when we first came were already nearly distributed to the wounded. They had not a morsel to eat, the ambulances were all gone and had been for several hours. As we went into the street again we found it was as silent as the grave—the pickets even were gone, and except a few men so soundly asleep under the trees that we could not awaken them, there was no one left in the road. After a second consultation we determined to go also. My assistants and myself soon found our horses, but the servant was gone, and with him the bridles, nor could we after much search and loud and long shouting find him. I went back to the old stone church, and found one soldier just brought in, whose wounds I dressed, and then said aloud to the poor fellows within, "Thank God, my boys, none of you are very seriously injured; you will probably all get well" To which I heard one or two feeble responses, "Thank you, Doctor, thank you." I could not tell them I was above to leave them, and I trust in leaving them so I did them no wrong. I could be of no more service to them until morning, and then I presumed they would be in the hands of a civilized and humane enemy, who would care for them better than we could. As I passed along out of the village, I requested one gentleman who lived there to look after them, and also a family composed of a man and wife with two daughters. They all promised to do what they could.

Our instruments we could not take. There were five of us and two horses, and my son had sprained his ankle and could scarcely walk, so we went on towards Fairfax Court-House, and in half an hour we began to overtake the rear regiments, and soon I saw Dr. Woodward's cheerful face begrimed with dirt like our own. I told him how we had left the wounded. There was no remedy, said he. They must be left. We hurried on, and at Fairfax Court-House overtook Gen. McDowell, to whom I at once reported the condition and number of the wounded, and requested to be sent back if he thought it best. He replied "You have done right, keep on to Washington." As I was leaving the gate he sent a messenger to call me back, and to ask me if I were walking. I replied that I was. "Gen. McDowell has here ten or twelve ambulances," said he, "for the wounded, which he obtained by a dispatch to Washington. He wishes you to ride." From Fairfax I rode until our ambulance broke down, filled with wounded. The wounded were transferred to another ambulance, and I again took to my feet, and occasionally to my horse. I reached Fort Runyon, opposite Washington, at about ten in the morning, and here washed my bloody hands and arms, for here I found the first water.

The wounded were scattered the whole distance from Centreville to Washington, not in large numbers, but here and there one could be seen walking by the aid of one or two associates. In reference to the ambulances, the occasion of their absence from Centreville was simply that the drivers became frightened, and to turn them back would have been impossible. Nor do I think it would have been possible for Gen. McDowell to have sent one vehicle back beyond Fairfax at the time I saw him.

It is remarkable that most of the wounds seen by me were not of a character which would be likely to prove fatal. Perhaps the men most severely wounded were left upon the field, or were dressed by those noble surgeons who were near them, and some of whom lost their lives, while others gave themselves up as prisoners.

In no case did a wound seen by me require the use of a tourniquet, although some of the soldiers had their limbs tightly girded, so as to have already occasioned great swelling and pain.

Most of the balls extracted were spherical; and of those which I removed the majority were taken through counter openings, the balls lying close against the skin.

Nearly all the soldiers that I have seen since the battle, in Washington and Alexandria are doing well.

I must not omit to state that after I had left, and when I supposed our whole party was in front of me, Mr. Nourse, acting assistant apothecary in our regiment, went back with three horses, and placing three wounded officers upon them, sent them off, for which he would accept no compensation. He then walked the whole distance to Alexandria. This, with many other signal instances of this young man's courage, endurance, and humanity, deserves an especial notice.

My own regiment having, under its excellent commander, Col. Calvin E. Pratt, of Brooklyn, N. Y., covered the retreat of most of the forces, and especially of Hunt's Battery, which took up a new position near Centreville early in the evening, left the ground at 11 P.M., and returned in perfect order to its old encampment near Alexandria. Before they left they received five successive volleys from the enemy's infantry, but not allowing their own fire to be drawn, they saved themselves and their battery from being overwhelmed and taken. I must regard the coolness and discretion of Col. Pratt under these circumstances, as the highest evidence of his capacity as a military commander.

FRANK H. HAMILTON,
Surgeon 31st Regiment, N. Y. St. Volunteers.

—*American Medical Times*.

Fortress Monroe---Statistics of Diseases at this Post.

THROUGH the kindness of Dr. Cuyler, Medical-Director at this post, who has permitted me to examine the official reports of the several surgeons of the regiments encamped near here, and at Newport News, I am able to give you some statistics relative to their sanitary condition, during the month of June, that may be of interest to your readers.

There were reported at this post on the first of July, about 9,387 enlisted men, and 511 officers. Of this number during the month of June, 4,218 have been under medical treatment; of these 246 have been sent to the General Hospital; 3,360 have been returned to duty; 71 have been discharged from service; 23 have died, and there were remaining 286 convalescent, and 232 still under treatment.

There were of fevers, 11 cases of congestive; 8 of continued; 58 of intermittent; 20 of remittent; and 10 of typhoid. There were 7 cases of erysipelas; 120 of rubeola; and 5 of varioloid; 74 of cholera morbus; 85 of colic; 52 of constipation; 2,026 of acute diarrhœa; 155 acute dysentery; 15 cases of gastritis; 2 of hæmatemesia; 3 of acute hepatisis; 7 of parotisis; 40 of tonsillitis; 88 of acute bronchitis; 55 of catarrh; 15 of hæmoptysis; 19 of larnygitis; 21 of pneumonia; 137 of acute rheumatism; 19 of chronic rheumatism; 91 of gonorrhœa; 5 of nephritis; 14 of orchitis; 58 syphilis, primary; 23 syphilis, consecutive; 148 of wounds; 24 of contusions; 15 of opthalmia. The remaining cases were of a miscellaneous character and of but little interest usually. Of those who died, 2 died of phthisis pulmonalis; 1 was drowned; 1 from delirium tremens; 1 from typhoid fever; and 17 from wounds received at Big Bethel, or accidentally in or near camp.

J. W. HUNT,
Surgeon 10th Regiment, New York Volunteers.

—*American Medical News.*

A NEW ALLOY OF COPPER.—A substance resembling gold, and known as "oreide of gold," is extensively manufactured in the United States under the licence of the French patentees MM. Mourier and Vallant. It is composed of 100 parts (by weight) of pure copper, 47 of zinc, 6 of common magnesia, 3·60 sal ammoniac, 1·80 quick lime, and 9 of crude tartar. The copper is first melted in a crucible, then the magnesia added, then the sal ammoniac, lime, and tartar separately, and in powder. These are kept from contact with the air, and are well stirred for about twenty minutes, until they are incorporated together. The zinc is now added in strips, which are thrust below the scum formed on the top of the crucible. The mass is now stirred, the lid put on the crucible, and its contents kept fused for about twenty-five minutes; after which the crucible is opened, the slag skimmed carefully from the surface, when the molten alloy is poured out into ingot moulds, if it is required to be rolled, or into iron moulds if designed for casting. When designed for works of art, however, it is best to cut into ingot form first, then melt it a furnace and cast it. This alloy is very ductile, and may be rolled into very thin leaf, but it nearly as easily tarnished as common brass.—*American Druggists' Circular and Chemical Gazette.*

Communications.

Remarks on Yellow Fever.

BY A. P. HAYNE, M. D.

[CONTINUED FROM NO. XLIII.]

IN the July number of this Journal we concluded our remarks on the "*external* or physical symptoms" of Yellow Fever. We propose in the present communication to continue the subject by noticing some of the most prominent among the "*internal* or remote." The first of these to which we would direct attention is the *epigastric tenderness*. Were we called upon to select one symptom as more constant and invariable than another, we should unhesitatingly point to this, not only as the one generally noticed by the patient himself, as well as by his medical adviser, but also as that best understood and most easy of solution. In all of our cases, with scarcely a single exception, we have found on post-mortem examination changes in the mucous membrane amply sufficient to explain so well marked a symptom. These may be said to be twofold, viz., softening *with* inflammation and thickening, and softening *without* inflammation, either with or without thickening. In no case have we seen the mucous membrane indurated. With regard to the precise seat in which these changes occur, there has been some diversity of opinion, and we can only give the results of our observation. In general, the softening has appeared to us to be uniform, though if there be a perceptible difference, it is in the great "cul de sac." The injected red appearance, on the contrary, may be said to be nearly always greater in this part. We regret that the press of other matters did not permit us to satisfy ourselves upon the changes said to take place in the mucous membrane of the osophagus. We have much and high testimony, however, on this point, and it would seem both natural and probable to suppose that the causes sufficient to produce such marked alterations in the stomach would be sufficient also to cause the same changes in a continuation of the same membrane. With this condition, then, of so important a membrane before us, we are not at a loss to account for the exquisite pain and sensibility observed (so great at times as to cause the patient to cry out with suffering,) when pressure is made in the epigastric region. We have found it most frequently occurring on the second or third day, though it may often take place as late as the fifth or sixth. Dr. Harrison, of New Orleans, speaks of it as occurring later. In violent and rapid cases, we have always noticed it on the second day.

Closely allied to this sensibility in the epigastric region, and doubtless dependent upon the same pathological causes, are the phenomena of *nausea* and *vomiting*. The latter especially has been regarded as one of the connecting links in the chain of symptoms. From our own observations, we draw the following conclusions: In two-thirds of them, nausea was present in the early stages, while in the remaining third it was absent. In one-half there was both nausea and vomiting, and in every case in which the latter took place, the substance ejected was black-vomit. In every case also (with but one exception) in which vomiting occurred, it was repeated at longer or shorter intervals, and the recoveries after the ejection of black-vomit were in the proportion of about one in six. It should be borne in mind, however, that these cases were of the worst kind, such, in fact, as are usually met with in hospital practice during an epidemic—many of them having had no treatment until the period of their admission. In our out-door cases, where nursing and attendance was given in the commencement, the mortality after black-vomit was not more than one-third. From these facts, it would be safer to infer that neither of these symptoms can properly be said to be always present, and although generally met with, they cannot be regarded as pathognomonic of the disease.

Thirst and appetite will next engage our attention. Generally both of these are found liable to considerable modifications. In respect to the former it has appeared to us to be moderate in the earlier stages, increasing in intensity as the case advanced, and becoming often intense towards the termination of the period of calm. If the perspiration be profuse, it is usually increased in proportion, although we have never seen it as great as spoken of by some writers, who mention cases in which the patient expressed himself as capable of "drinking rivers of water." Cold water and ice seem to be mostly desired, although those accustomed to the use of ardent spirits often desired their usual stimulus, and we frequently found it decidedly to their advantage to permit its use, with proper dilution and in small quantities. The appetite, on the contrary, (as in fact is the case in nearly all fevers,) seemed from the very commencement to be entirely destroyed in the majority of cases. It was often difficult to get a patient to take any nourishment at all. There is one exception, however, which it is well to guard against. So urgent does the desire for food become in other cases, especially towards the abatement of the fever, that the greatest caution is necessary to prevent a relapse. We have repeatedly seen a fatal termination produced by neglect or indulgence in this respect.

A glance at the physical symptoms furnished by the condition of the alimentary canal will conclude what we have to say in relation to this branch of our subject. The bowels are rarely subject to diarrhœa or other discharges during the two first stages of yellow fever. "Cramps and colicky pains" sometimes occur, but are limited to a brief period only. The striking feature of the disease in relation to these organs presents itself on the third or fourth day in the majority of cases, but as early as the second in rapid cases. Then it is that we notice the "dark watery, coffee-grounds stools," of whose identity with black-vomit there can be no question. These stools, although not a fatal symptom, are nevertheless of a gravity sufficient to induce the utmost vigilance, and should never pass unnoticed. Strange as it may appear, we have most frequently noticed them *previous* to the ejection of black-vomit, and we would therefore infer that the first effort of nature was to get rid of the deleterious matter by the bowels. In some cases her efforts are successful, for no ejection by the act of vomiting occurs. We have found these "coffee grounds" stools continue in some cases for several days, while in others they last only twelve or fourteen hours. As soon as black-vomit has once been ejected, they appear to cease, as if the peristaltic motion of the intestines had become suspended, and the stomach, the reservoir in which this peculiar characteristic of the disease is formed and retained, until emptied by the peculiar spasmodic act of vomiting.

Having thus has'ily glanced at a few of the most prominent physical signs, we pass, in conclusion, to the consideration of the anatomical character —or in other words, *true pathology* of the disease, which we propose to do in the next number of this Journal. As we have already given a published account of the post-mortems of our cases in minute detail, a cursory and humid glance will be all that we shall attempt.

[TO BE CONTINUED.]

The Doctrine of Pyæmia and Embolia.

[*Translated from the German for the Pacific Medical & Surgical Journal.*]

THE doctrine of the purulent infection of the blood did undergo a severe criticism by Virchow. The presence of pus in the so-called pyæmia blood cannot be proved positively. Many cases where investigators thought they saw, by aid of the microscope, the pus corpuscles which had penetrated into the blood, were cases of leukæmia or poly-leucocythæmia. Colorless blood corpuscles, like pus corpuscles, may undergo the most varied modifications—they cannot be discriminated from each other specifically. A deadly disease may be generated by the injection of putrid substances in the blood (septicæmia of Sedillot) but not the symptoms of pyæmia. Pyæmia, can be caused also only in exceptional cases by the injection of real pus (pus serum). The so-called pus in the veins, which was looked upon as cause of the pyæmia ensuing after a purulent phlebitis, is no pus at all, but a detritus of fibrin and blood corpuscles, from the thrombus having fallen to pieces. The transit of pus into the blood can scarcely ever be proved, with the exception of those rare cases, where an aspiration of it is possible, or where abscesses break through into the cavity of blood-vessels; and exactly in cases of this kind no pyæmic symptoms were observed. The phenomena brought together under the name pyæmia should be divided into two series, of which one might be explained more mechanically (by embolia), and the other more chemically (by infection.) There exist cases of far spread suppurations, in which, notwithstanding the most intense pyæmic typhoid-fever, nothing at all is detected in the cadaver to explain it. There are cases of extensive purulent diathesis, in which the post-mortem shows a great quantity of the so-called metastases, while no pyæmic symptoms at all were observed during life. Other cases there are of large suppurations, in which death followed after repeated chills, while the post-mortem shows no traces of a more general infection. There are cases, also, where pyæmia is diagnosticated during life, and the post-mortem only shows embolia. The substance which causes infections after it is resorbed is probably of a peculiar kind, and different from pus corpuscles, from pus serum, and from common putrid substances. There ought to be made a distinction, also, between simple septicæmia and ichorrhæmia—the reception of corrupt fluids form purulent or putrescent places, as they are often caused by epidemic influences. This ichorrhæmia causes especially a tendency to the generation of inflammatory, diphtherious, erysipelatous and purulent processes and metastases.

True thrombi differ, according to Virchow, from mere blood coagulations, by a more plainly laminated structure, which shows sometimes nearly a ribbed structure; by a greater richness in fibrin and colorless blood corpuscles. They may grow by setting on of new substances against, above, below, or on both sides.

Thrombose does not originate, as it was believed, in a certain peculiarity of the blood, but the common course is the slackening of the blood's stream, and by that the possibility that the oxygen of the outside or already in the blood may take longer effect on the blood. Therefore, new formations of thrombi are surely favored by rough surfaces in the inside of blood-vessels, by excavations, by sinus of the valvules, and also by inflammation of the blood-vessels; as, also, *vice versa*, much oftener inflammation of the vessel originates from the thrombosis. Thrombi undergoes two kinds of metamorphosis in their organization—new formation of fibrous tissue, or formation of detritus (softening with pus like or putrid melting.) In practice the following species of thrombi are the most frequently met with:

1. The marasmic: not only in marasmus senilis (as gangrene senilis), but also in various other diseases combined with chronic marasmus, and, therefore, with weakness in muscular power of the heart—as p. c. phthisis, carcinoma in convalescents after grave surgical operations, &c., wherefore, to the species belong partly the so-called rheumatic and metastatic phlebitis, and the phlegmasia alba dolens.

2. Thombosis caused by compression (p. ex. by tumors).

3. Thrombosis caused by dilatations (p. ex. aneurysms and varicose).

4. Traumatic thrombosis, either by partial wounding of the vessel's walls (thrombosis by venesection), or by severing the total continuity of blood-vessels (by amputation.)

5. Thrombosis of the new-born (respectively fœtal thrombosis), in the umbilical vessels, in the ductus arteriosus, even in the umbilicus and placenta.

6. Puerperal thrombosis : a slighter degree of placental thrombosis is a physiological process necessary for cure during the puerperism, to which annexes pathologically phlebetis and lymphangoitis uterina puerperalis.

7. The secondary thrombosis, after inflammation of the walls of the blood-vessels, frequently subsequent to an erosion and destruction of the wall by suppuration and pus coming in the vessel.

In Virchow's doctrine of the embolia, it must be remarked, that its primarily local, as its secondary more remote consequences, are very various ones. Such depends not only upon the organ involved, but especially also

1. Upon the size of the obstructed vessel (embolia of the trunk, the branches, or the capillaries).

2. Upon the degree of the completeness of the obstruction; because if the blood may pass yet beside the clot, the disturbance is less, sometimes even null.

3. Upon the nature of the obstructing body itself (its mechanical or chemical properties, more or less irritating the walls, p. ex. sharp points of such a body, putrid melting of the same, &c.)

The disturbances caused by embolia are the following:

I. Functional ones.— 1. Sudden death (by asphyxia, cerebral apoplexia, rupture of the heart). 2. Apoplexia. 3. Acute mania. 4. Amaurosis. 5. Angina pectoris (by obstruction of the coronary arteries). 6. Dispnœa (by embolia of the pulmonary arteries). 7. Neurosis of the lower extremities (by embolia of the corresponding arteries).

II. Anatomical ones. –1. Necrosis gangrene, diffuse or in circumscribed localities. 2. Malacia. 3. Extensive inflammation. 4. Hemorrhagic infarctus. 5. Abscesses.

* * *

MUNICH, 5th Dec.—Eight days ago tracheotomy was performed in the city hospital, under the worst conditions, but with the best success. Laryngeal ulcers (probably tuberculous ones) had caused in a man 40 years old already several times paroxysms of suffocation and cyanose to such a degree that Professor Gietl, in whose clinic the patient was laid, ordered preparations o be made for tracheotomy. At two o'clock A. M. cyanose and the suffo cation became complete. The pulse was exhausted, breathing has ceased completely, the extremities, as also the more prominent parts of the body were perfectly cold, and of a deep blue; all reaction was gone, as you could rub the cornea of the eye with your finger without producing any. Professor Nusbaum was called and performed tracheotomy immediately. The patient was laid up like a cadaver, and the operation ended in the space of one minute, and appeared to have been made on a cadaver. Only a little coagulated blood came from the cut blood-vessels. The canula was introduced, but no breathing ensued. A catheter cut off on the end was deeply introduced in the bronchia, and air pushed in, which was in an instant pressed out again, with the pressure on stomach and breast. After this artificial respiration was continued for twenty-five minutes, it was observed that the blue color of the face became a little lighter, and at last he breathed several times, but he soon collapsed, and again the artificial respiration was tried. Professor Nusbaum injected now through the tube perhaps half a drachm of strong solution of nitrate of silver in the bronchia, through the catheter; and now ensued a strong reaction, coughing, and deep drawing in of the air. In this manner the way was broken—the breathing became regular, the pulse again sensible to to the touch, the wound began to bleed, the extremities became warm, and soon the cyanosis disappeared. Some white gauze was laid before the canula and on the sides of it round the neck; sponges were well soaked in hot water and squeezed out, for the purpose of warming the air. The patient, who regained consciousness in a short time, was allowed to drink a glass of wine, and recovery took place gradually.—*Bavarian Intelligencer.*

Editor's Table.

HEALTH OF SAN FRANCISCO.—During the month of August the weather was very mild, some days very warm, the thermometer marking 80 degrees in the shade for a few moments in the day. There was no day without the usually refreshing and sometimes cold wind from the ocean during the afternoon. Only one case reported of death by diphtheria during the month. There are some half a dozen encampments of volunteer soldiers in the suburbs of the city—generally in a good sanitary condition. We hear of no deaths among the volunteers during the month. The Medical-Director, Surgeon McCormick, causes the volunteers to be attended daily by capable physicians from the moment they go into camp until commissioned Surgeons and Assistant-Surgeons are assigned to the various regiments and battallions. They are immediately supplied with medicines and hospital stores. The volunteer department, at least the medical department, works with the promptness and regularity of regular encampments and military posts. The recruits look healthy, well fed, well clad, and contented. Order and difcipline so essential to the health of the soldier, seems to be maintained from the start, by a kind of intuition and intelligent mutual consent.

The total mortality in the city for the month of August was 164, being an increase of 39 over the month of July. Of this number, 110 were Protestant, 37 Catholic, 15 Pagan (Chinese), and 2 Hebrews. Of these numbers 50 were under three years of age. Of the 37 Catholic, 15 were under three years. Of the 125 others, 35 were under three years. Of the 164 deaths, 54 were between the ages of 30 and 40. There were 26 cases of "consumption." Still-born, 3. No epidemic or endemic.

NATIVITIES.

California	54	Norway	1
Atlantic States	21	Scotland	1
Ireland	21	Victoria, B. C.,	1
Chinese	15	Prince Edward's Island	1
Germany	13	Hanover	1
France	9	Nova Scotia	1
Sweden	3	Isle of Man	1
England	2	Chile	1
Jamaica	2	Portugal	1
Bombay	1	Unknown	14
Total			164.

THE Medical Board for examining candidates for Surgeons and Assistant-Surgeons, now in session in this city, consists of Surgeon Chas. Mc.Cormick, Medical Director, President of the Board; Surgeon R. H. Cooledge and Assistant-Surgeon Jno. J. Milhau. Quite a number of candidates have already presented themselves.

SURGEONS OF CALIFORNIA VOLUNTEERS.—Dr. Reid, of Stockton, and Drs. Williamson and McNulty of this city, have been accepted and assigned to duty as Surgeons. The total pay—that is, pay proper and commutations—amounts to two hundred dollars per month, a dollar more or less. These gentlemen are certainly deserving of some credit for patriotism. We very much desired to enter the army in the same capacity, but upon mature reflection we found that we could not possibly afford it. It is passing strange that the pay of an army surgeon is not permitted to approximate that of civil surgeons and physicians of similar professional rank. Dr. Toland, of this city, enjoys an income from the practice of medicine and surgery probably of thirty-five thousand dollars; others reach from four to fifteen thousand dollars per annum. A gentleman with a family of one or two children only must either have an income from other sources, or must husband the pay of an army surgeon with great economy, to support himself in the field and his family at home, on the salary allowed by the Government. The salary of the officers in the army is too small, but it is ruinously so in the instance of army surgeons. Promotion from grade to grade and increase of pay are imperatively needed in the medical department of the army especially.

Abstracts.

To Ligate the Superficial Arch.—(Arcus Sublimis.) [*Gaz. des Hop.*, July 16, 1861.] Place the thumb in the condition of the greatest possible abduction, then trace a line along the prolongation of its ulnar border across the palm of the hand. In front of the first line and parallel to it, and one centimetre nearer the fingers, trace a second line—that is, to be more exact, let the second line lie between the first and middle cutaneous crease of the palm; this second line lies exactly over the arcus sublimis. If we incise the skin and palmar aponeurotic fibres, the artery will appear lying upon a fatty stratum which separates it from the tendons and nerves. We need have no apprehension of wounding these organs. All the transverse portion of the superficial palmar arch which has an extent of three centimetres may be exposed by this incision.

Medullary Cancer is transmissible from animal to man. A woman, aged 23, in Bas Rhin, took care of an ox that had a medullary tumor behind the shoulder-blade. She washed the tumor daily while it was discharging a watery substance from a puncture. She had an abrasion on one of her fingers; this became the seat of a medullary cancer, which was eventually removed with the knife and Vienna paste, and cured after the poor woman had suffered a great deal of pain. (Case reported in *Gazette Medical.*)

Vichy.—The waters of this renowned resort have acquired new virtues since the visitation of the Emperor. Vast numbers seek remedial aid at Vichy.

Iodine.—Ovarian Dropsy.—M. Legrand reports to the Society of Medicine the death of a woman, aged 56, from one injection of iodine into an ovarian cyst, which had been emptied by the trocar.

Mortality in Russia. In the 285,064 communes and boroughs of the Russian empire there are hardly 1,000 physicians to attend the sick. This statistical fact assists in explaining why the mortality is much greater in that country than in the rest of Europe. Thus, in Russia, there is one death to 27 or 28 persons annually, whilst in England the ratio is 1 to 45, and in France 1 to 42.

Notices of Books, &c.

BUFFALO MEDICAL AND SURGICAL REPORTER. Edited by Julius F. Miner, M. D., Surgeon to Buffalo General Hospital. Buffalo: Joseph Warren and Co. 1861.

WE are glad to see this new medical journal from the city of Buffalo. When we were in that city last April, and saw its evidences of wealth and prosperity, we were surprised it had not yet re-established a medical journal. We welcome this one, and have no doubt it will be supported by the profession. Its terms are only $1 a year, in advance, and each number contains thirty-two pages of selected and original matter.

A PRACTICAL TREATISE ON MILITARY SURGERY. By Frank Hastings Hamilton, M. D., late Surgeon Thirty-third Regiment, Fourth Brigade, Fourth Division, New York State Artillery, &c., &c. New York: Bailliere Brothers, 440 Broadway. 1861.

THIS is a neat royal octavo of 234 pages, and is beyond doubt worth much more than its cost to the inexperienced surgeon.

Some men write too much, and some too little. Surgeon Hamilton (Surgeon to the 33d New York Volunteers,) has done both. He ought not to have published this book in its present shape, for the sake of his own reputation. The author of "Fractures and Dislocations" could have done much better. Everything he has said in these 234 pages he could have said in 100 duodecimo pages, and thus quadrupled the value of the work. It was quite *unnecessary* that Dr. H. should quote authority to prove the correctness of his opinions—his own opinion is as good, at least for the occasion, as that of any gentleman he quotes. While we admire his modesty, we regret that his book is encumbered with its exhibition, simply because it greatly impairs the utility of the work. This book is either twice too large or three times too small. It is neither Athenian nor Spartan. It has the grace of the former without its copiousness, and the directness of the latter without its conciseness. Still, we repeat, in the absence of a better work, it is invaluable to the field-surgeon.

For sale by B. B. Thayer, Chemist, &c., Montgomery-street.

COMMUNICATIONS OF THE RHODE ISLAND MEDICAL SOCIETY FOR THE YEAR 1861. Published by the Society. Committee of Publication: George L. Collins, M. D., Isaac Ray, M. D., Charles W. Parsons, M.D. Providence: Cook & Danielson. 1861.

CONTENTS:—Address on the Relation of the Young Physician to the Profession and the Public.—By G. H. Stickney, M. D. Letter on some points of Military Surgery.—By Usher Parsons, M. D. Chlorate of Potassa in Phagadenic Ulceration.—By W. Owen Brown, M. D. Case of Tubercle of the Lungs, resulting in Pneumothorax and Death.—By Thomas K. Newhall, M. D. Case of Interrupted and Renewed Lactation. By J. H. Eldredge, M. D. Address on the Epizooty lately prevalent among Swine.—By E. M. Snow, M. D.; with the result of post-mortem examinations.—By G. L. Collins, M. D. Obituary Record. Second Part—Proceedings of the Semi-Annual Meeting, December 19, 1860. Proceedings of the Annual Meeting, June 19, 1861. Treasurer's Report for 1861. Officers for 1861. Fiske Fund Prize Essays.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late JOHN W. FRANCIS.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from eminent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the SUMMARY OF MEDICAL SCIENCES will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "THE EPITOME"—and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. WELLS, M. D.—DEAR SIR: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage aud can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE
Pacific Medical and Surgical Journal.

Selections.

Medicine Among the Mormons and the Indians of North America.

It may be remembered that in the Autumn of 1858, the United States sent a military expedition to Utah, against the Mormons. The Reports* of the Surgeons who accompanied the expedition and saw something of Mormon life, are of great value, as showing the effects which complete isolation and gross religion, whose very essence is Polygamy, have produced on the physical stamina and mental health of that saintly community.

Among the males, sexual debility, with its concomitant evils, is stated to be the most common result of this premature stimulation of the sexual passion, and the facilities of gratifying it. Among the women these same causes show their pernicious effects, not in diminution of generative power, but in physical deterioration of the offspring. The women are even remarkable for their fecundity, but their children are ill-nourished and cathetic, a large proportion of them dying in infancy, and those, who *do* live to maturity, looking feeble, sickly, stunted, and (the males) emasculate. Mormonism appears to have made its impress on the countenance in a remarkable manner. "There is an expression of countenance," says one of the Surgeons, "and a style of feature which may be called the Mormon expression and style—an expression compounded of sensuality, cunning, suspicion, and smirking self-conceit. The yellow, sunken, cadaverous visage; the greenish-colored eyes; the thick protuberant lips; the low forehead; the light, yellowish hair; the lank, angular person, constitute an appearance so characteristic of the new race, the production of polygamy, as to distinguish them at a glance. The older men and women present all the physical peculiarities of the nationalities to which they belong; but these peculiarities are not propagated and continued in the new race; they are lost in the prevailing Mormon type."

The Mormon faith inculcates that diseases can be cured only by miraculous interposition; consequently, the secular professors of the healing art are not much patronised. "The Church authorities are exceedingly jealous at an attempt to cure by ordinary therapeutics, and denounce from the pulpit any invasion of their special province. Though they claim for the laying on of hands wonderful efficacy, the number of deformities—the result of malpractice, to be seen in any of the populous towns—rather indicates a necessity for the use of carnal means. The art of surgery is at a low ebb."

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* "Statistical Report on the Sickness and Mortality in the Unitad States Army, from 1855 to 1860." Washington.

The only disease peculiar to the Utah Territory is what is called in the reports "Mountain Fever." The minute descriptions given of this disease leave no doubt in our mind that it is nothing more than a form of periodical fever, modified by elevation and other hygienic conditions. The persons who most suffer from it are the trappers and Indians when following the rivers to their mountain sources for the purpose of trapping beaver. With this exception, no diseases of a severe character prevail in the Territory, the climate of which is unrivalled for healthiness. In the different reports much uncertainty is expressed whether this "mountain" fever owns the same cause as ordinary intermittent fevers; but when we read the topographical descriptions of the localities where it prevails and the seasons to which its prevalence appears to be restricted, we cannot for a moment doubt that both kinds are attributable to the same, and to no other, efficient cause, viz.: marshy ground in the process of drying under the influence of solar heat.

The reports of the Army Surgeons, located at the various military posts in Utah, state that the climate of that country exercises singularly beneficial effect upon phthisis. They were stationed in that territory from the autumn of 1857 to the spring of 1859, a sojourn long enough to render their observations, both on this and on other matters, worthy of our credit.

The Utah Territory has an average elevation of about 6000 feet above sea level. It consists of ranges of hills, with intervening broad table lands, valleys and streams. What renders its climate remarkable is its *equability and dryness*. Although strong south-westerly winds are almost constantly prevalent, and the range of temperature in the course of the year is considerable (from about 90° in summer to about 20° in winter), *sudden vicissitudes* of temperature are very rare; the summers being regularly hot and the winters regularly cold. The absence of moisture is indicated by the hygrometer and by the freedom of arms and surgical instruments from the slightest traces of rust. The great dryness is stated to render the extreme cold much less appreciable to the senses, so that a smaller amount of clothing is necessary than in latitudes warmer but moist. Such being the nature of the climate, the reports show that the prevalence and mortality of phthisis are much less at the Utah station than at any other military district in North America. In 1858, out of 5,842 men stationed in Utah, only eight cases of phthisis occurred, and only one of these proved fatal. The freedom from pulmonary complaints of *all* kinds in this country, is equally remarkable. That this comparative immunity from phthisis, and lung disease generally, is due rather to peculiarity of climate than mode of life, seems clear from the fact that those, on whom the observations have been made, are soldiers—a class of men whose habits are much the same everywhere. So notorious is the healthiness of these high regions of the far West, that the subjects of hereditary or acquired predisposition to phthisis or scrofula, as well as other invalids, have for some time past been largely migrating to them, as being the climate of all others in North America the most suitable for their maladies. The journey across the plains from the Atlantic States is not now nearly so formidable an enterprise, as it was a few years back. Along the great roads constituting the overland route to California, the journey to the West can now be accomplished without danger or delay. So much for Utah, its inhabitants, diseases and climate. We will now turn to some of the adjacent Indian tribes of North America, concerning which we find several interesting details in the reports before us.

Intemperance and disease, especially syphilis, scrofula, phthisis, small-pox, cholera and fever—coupled with the evils incident to a state of almost perpetual warfare—are said to be slowly exterminating the aboriginal inhabitants of North America. Another influence, tending in the same direction, is the steady advance of civilization, the restraints of which are incompatible with the nature and habits of these children of the forest. As the Indians will not blend with civilization, they must recede and dwindle away before its onward progress. The Indian, when his natural habits are interfered with, "feels himself a prisoner and deprived of his dearest rights; his spirit is broken, and with the change of diet and wearing apparel, and being deprived in great measure of his natural exercise, disease takes hold of him and he sinks under it. As a general thing, deprive an Indian of his accustomed exercise and give him plenty of beef and flour, he gets dysentery; and when he changes his wearing apparel, laying aside the open blanket and putting on the white man's tight coat, and lies down to sleep, his lungs take on disease, and soon become full of tubercles." Such is the testimony of the American Surgeons who have lived among them and closely watched their ways.

The Indian tribes are said to have no regular physicians among them. The "Medicine man" is a sort of half priest, half doctor, who possesses mysterious remedies and is regarded with superstitious awe. Among many of the tribes, especially those on the frontiers of civilization, there are swarms of traveling charlatans and heartless quacks, who ply their trade with success proportioned to the unbounded credulity of the buyers of their vile nostrums. Phthisical patients are generally left to their fate. Phthisis is one of their commonest diseases, and as it is regarded by the majority of the Indians as communicable by contagion, especially among the family of the afflicted individual, the poor sufferer has to drag out the most miserable solitary existence, till death relieves his sufferings. Barring the use of a few inert remedies of a domestic nature, diseases in the majority of cases is left to run its course. Some tribes, on the other hand, adopt methods of treatment altogether the reverse of the expectant. The New Mexican Indians, for instance, suffer much at certain seasons of the year from intermittent fever; and for the cure and prevention of this disease, large numbers of them assemble once a year (in the spring), and for the space of three days swallow frequent draughts of the infusion of some powerful herb, which causes violent vomiting and purging. This is called a "Medicine Feast," and is supposed to cure the fever where it already exists, and to fortify the system against its attack during the ensuing summer and autumn. Whether as a curative or as a prophylactic measure it is attended with any success, is not stated.

The New Mexican Indians have another annual gathering, a "feast" of a more truly festive description than the one just mentioned. It takes place in the winter, on the mountains, when they "distil a nasty, filthy kind of liquor from corn, which is known among them as *tiswing*, of which they are passionately fond, and never lose an opportunity to get gloriously drunk, whenever a little corn can be procured to make it from. Their mode of distillation is as novel as it is simple. The corn, procured by stealth, or as a 'forced loan,' is steeped for twenty-four hours, then placed between the scanty folds of the family couch to ferment* beneath the bodies of the lusty warriors, whose slumbers are soothed by bright dreams of 'the good time coming,' when all shall be assembled at the festive wigwam to partake of the intoxicating pleasures of this unpretending beverage. The malt is now coarsely ground, a certain amount of water added to it, then placed in earthen vessels and allowed to ferment for forty-eight hours, at the end of which it is used without straining or any other process. The better to enjoy

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* The writer evidently means "to germinate."

'the feast of reason and the flow of soul,' these votaries of Bacchus prepare themselves by a solemn fast of forty-eight hours previous to the commencement of the festal joys, for the purpose of enjoying the most profound spiritual impressions—in other words—they get 'right royally drunk,' on empty stomachs. Were it not for this precaution, the mild character of the beverage would fail 'to make the drunk come.'"

The Oregon and many other Indians have one chief remedy for all internal diseases. This consists of a hot vapor-bath followed immediately by a plunge into a cold stream. Such is their mode of treating small-pox, for instance; the result in almost every case is stated to be fatal.

The North Californian Indians treat disease in a manner totally different from that of the Indians east of the Rocky Mountains. They resort neither to the animal, nor the vegetable, nor the mineral world for a cure. "Their philosophy of disease is based upon the idea that an evil spirit of some dead Indian steals into the body and locates itself, and wherever the pain may be, there the spirit is. Their system of therapeutics is perfectly compatible with their notions of pathology. Their doctors are always females, and none are called to practice except those who are commissioned as it were by nature. When a young squaw chances to have a slight periodical hæmorrhage from the mouth or any other part than the natural channel—in other words, if she should have vicarious menstruation,—she is the one who for ever after is destined to heal the sick. The young squaw is not at all covetous of her calling; she dreads her profession, for on her failure to effect a cure, she loses her life. Her art of medication consists in working herself up into a mesmeric or hysterical condition, and then making gentle passes over the part diseased, and lastly plunging her fists into the muscles of her prostrate patient, as if she were really determined to tear out and expel the dead Indian's evil spirit in good earnest. Then, again, the doctress throws herself into a gladiatorial position, being surrounded by a dozen or more 'bucks,' who assist in the performance by chanting and howling like so many demons; and then she throws herself with her whole weight on her subject, clinching the part diseased, and if she is lucky she drags out the evil spirit (with a portion of the patient's skin,) and dashes it into a vessel of water ready for that purpose. If the patient is satisfied that he is relieved of the dead Indian's spirit and the pain, all is right; but if the pain chances to return, the poor squaw loses her head under the tomahawk."

The climate of California would appear to be singularly healthy and invigorating. In one of the Medical Reports for that country, it is mentioned as a notorious fact, that when females from the Atlantic, or from the inland States, go to live in California, their uterine functions assume a greatly increased activity; that menstruation becomes much more copious; that those who have been barren for years, and those who have never been pregnant at all, after a short residence in their new climate, are almost certain to become "joyful mothers of children." The venereal propensities of the other sex are said to derive a fresh impulse under the same circumstances. It is further stated, as a matter of fact, that the fecundity of cows, sheep and pigs, greatly increases, if they are brought from the plains of the interior to the Californian coast. We should receive such a statement with great distrust, were it not made in such an unhesitating and unqualified manner by a medical gentleman in the United States Army, whose residence in the country must have given him abundant opportunities for investigating the truth of the matter.

Child-bearing among the Indians is stated to present the same delays and accidents as among the civilised inhabitants. In tedious labor pressure is made on the abdomen with the hand, and, if this does not expedite matters, a hoop is placed round the waist, and forced downwards. Hence we are not surprised to hear that prolapsus uteri is so common among them.

Syphilis is exceedingly rife among the Indian tribes, but more so in the southern than the northern parts of the continent. Two reasons are assigned for this in the report: 1. From the middle of the sixteenth century up to the present time, the Spaniards have been mixed up with the aborigines, and have freely sown the seeds of the disease among them. 2. The Spaniards seldom visit the northern parts, and if they do, the colder and purer climate renders the virus less infectious and more likely to give way under the influence of natural causes. The northern and central tribes believe the disease to have been disseminated among them by the Hudson Bay traders; not under the natural impulses of sexual passion, but with the "pale-faced," cold-blooded design of undermining their strength and thinning their numbers. Scoundrels as many of these traders undoubtedly were, one is loth to impute to them such villainy as this.

So terrible have been the ravages of syphilis, that the Indians of New Mexico have had the wisdom to adopt penal measures, which are found greatly to check the spread of that disease. Any member of their tribes, who is known to have contracted the disorder, is either tomahawked forthwith, or, like the leper of old, excluded from all intercourse with his cleaner fellowmen, and abandoned generally to die of starvation. Dread of a punishment, so certain and so terrible, makes them cautious about exposing themselves to the chances of infection.

The following novel mode of treating retention of urine, is related in one of the reports:—In 1857 an unfortunate half-bred Frenchman applied to the Surgeon at Fort Randall, in Nebraska, for the relief of stricture of his urethra, which had been caused by gonorrhœa contracted twelve months previously. He had suffered several bad attacks of retention, and on one occasion had been obliged to have recourse to the skill of an Indian doctor, whose mode of treatment, whatever may be said against it, possessed, at least, the triple merit of novelty, simplicity and success. The doctor applied his lips to his patient's penis, and by repeated vigorous efforts at suction, drawing off a *bon-bouche* at a time, managed at last completely to relieve the enormously distended bladder. It had been previously stipulated that the poor Frenchman, as a consideration for the service performed, was to give the doctor his only horse. We have heard of the Hindoo surgeons using suction for extracting a cataract after incising the cornea; but the above application of nature's suction-pump for the relief of suffering humanity struck us as an idea truly original, though we have since seen, in an old number of the *Gentleman's Magazine*, that an English surgeon performed the same office for Ferdinando, one of the Earls of Derby, in the seventeenth century. We place the hint at the disposal of the profession. The ingenuity of some enterprising surgical mechanist may, perhaps, turn it to account and reproduce it in some more palatable form, such as the exhausted glass air-chamber used by Sir Philip Crampton, to remove fragments of broken calculi with viscid mucus from the bladder after lithotrity, or the powerful syringe we have ourselves used for the same purpose.—*London Medical Times and Gazette.*

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SOCIETY OF ARTS.—This influential society, at its recent annual meeting, awarded its siver medal to the following gentlemen:—Dr. Edward Smith, for two papers "On Alcohols and Teas;" Mr. A. K. Isbester, for a paper "On the Hudson's Bay Territories;" Mr. Alexander Redgrave, for a paper "On Textile Manufactures;" Dr. Milligan, for a paper "On Tasmania;" Mr. Charles Ledger, for the Introduction of the Alpaca into Australia; Mr. F. Jouber , for a New Process in Photography.—*London Medical Times.*

A Curiosity of the Middle Ages.

Some time ago the Percy Society published a short satirical poem from a manuscript in the library of St. Peter's College, Cambridge. In style and language, it will be found, generally speaking, to resemble the old English of Piers Ploughman's Creed and Vision, and the date from internal evidence must be about the year 1320. It is, therefore, one of the very earliest compositions of this kind in the English language. The versification is in rhyme, with occasional examples of alliteration, and the author does not, as was the habit of his immediate predecessors who wrote in the Latin language, confine his censures to any mere abstractions, such as pride, avarice, and simony, but proceeds to a direct attack on all states and conditions of men—the Pope, clergy of all degrees, physicians, knights, barons, squires, ministers of State, advocates, attorneys and merchants. The poem is one volume of unmitigated invective, and all classes are denounced as finding their chief pleasure in victimizing the poor. There was much reason for these complaints, and probably writing of this kind was the only corrective which that age could have appreciated. No doubt this and such like poems had great influence in predisposing the populace for the Lollard doctrines, as well as in urging them to Jack Cade excesses. We offer that short portion which relates to the Medical Profession, as a literary curiosity, which our readers would not otherwise be likely to see in a publication so restricted in its distribution. We have no objection to looking into an old mirror, even if its roughness does reflect a few class evils and misdoings a little out of due proportion. It is vain to wish for absolute perfection among ourselves any more than in the rest of the world, but if there be any who feel themselves aggrieved by the making public such an exposure of what was wrong among their prototypes four hundred years ago, every one must know the secret cause of their sensitiveness:

Yut ther is another craft
That towcheth to clergye—
That beth thes fisiciens
That helpeth men to dye.
He wol wag his uryn
In a vessel of glass,
And swer by seynt Jon
That he is seker than he was,
And seye,
"Dame, for defawght
The god-man is i-sleve."

Thus he wol affray
All that ben therinne;
And mak many lesyngs
Sylver for to wynne:
After that he wol begynne
To comfort that wyf,
And sey, "Dame, ley cost, (pay the fee)
And we schul save his lyf"—
And lye,
Thow he be never the wyser
Whether he wol lyve or dye.

Furst he wol begynne
To blere the wyf's eyye; (to impose upon her)
He wol aske half a pownd
To bygge with spiserye; (to buy spicery with)
The eyght shillyngs schul up
To wyn and to ale,
And bryng him rotys and rynds
Bretful (brimful) a male (a chest)
Of nowght;
Hit schal be dere i-now a leke
Wan it is al i-browt.

He wol preise it fast
And swere as he were wod, (mad)
For the kyng of Ynglond
The drynk is sweet and god,
And gif the gode-man to drynke
And make hym wers than he was;—
Evel mot he the, (thrive)
The clerke
That so beryth away that sylver
And falselich dothe hys werk.

He wol byd the wif sethe a caponn
And a pese of bef;
The gode-mans chal have never a mossel,
Be he never so lef. (desirous)
He wol pike hit hymself
And make his mawe towt,
And gif the gode-man to drink
Lene broth that is nowght
For the sek;
(He who) That so bygileth the gode-man
Godd's cors on hys cheke.

He madeth hym al nyght at ese
As wel as he can,
And loke that ha fare wel,
Hors and eke man;
A-morow he taking the uryn
And waggeth in the sunne,
And seyth, "Dame, blessed be God!
Thi maystre is i-wonne
And lyketh: (thriveth)
Thus he beareth awey that selver,
And the gode-wife biswyketh. (cheateth)

Certes, and by my sowle,
This world is al beshrewed;
Much thei fare with falsenes
Both lered and lewed. (learned and lay.)

—*Medical Times and Gazette.*

By a recent decree the Emperor of France has authorized the erection of a statue to Baron Larrey, at Tarbes, near where he was born.

On the Radical Cure of Reducible Hernia.

BY PROFESSOR SYME, EDINBURGH.

At the meeting of the Medico-Chirurgical Society of Edinburgh, held on the 6th March, 1861, Professor Syme introduced a patient who had been suffering from reducible inguinal hernia, and on whom he had lately operated with success.

The members of the Society (said Mr. Syme) were well aware that the radical cure of reducible hernia had long been regarded as a most important desideratum in surgical practice, and that many means of attaining this end had been proposed, which had not, however, turned out satisfactory. Professor Wutzer had more recently proposed a more effectual method, the only objection to which was the complexity of the apparatus required, which placed it out of the reach of many practitioners, and at the same time rendered it difficult of application. Mr. Syme had now to bring before the Society a mode of accomplishing the object, more simple than the plan of Mr. Wutzer, and he believed more effectual.

Mr. Syme would first remind the Society that Mr. Wutzer's operations consisted in invaginating or pressing up a piece of integument so as to cause it to occupy the inguinal canal, and in retaining it there by means of a needle until adhesions had formed, when the invaginated part acted like the cushion of a truss, and confined the bowels within the abdomen. The apparatus by which this was accomplished was very complicated. When its different parts had been put together, the instrument (smeared with an irritating ointment) was introduced up an external ring; a long needle was passed through it, so as to penetrate the invaginated integument and the parietes of the abdomen, where it was retained by means of a guard; after which, another part of the instrument was employed to compress the parts concerned. Not only was the apparatus very complicated, but it was by no means easy or certain to introduce the instrument fairly within the external ring.

Since this method has been proposed, various modifications of the apparatus had been suggested, but certainly not with the effect of simpifying it.

The plan which Mr. Syme had now to recommend was one of the simplest character. Instead of a complicated apparatus for filling up the inguinal canal, the surgeon only required an elongated body of some kind, such as a piece of bourgie, a piece of an œsophagus tube, a bit of wood, or even part of a wax or tallow candle; all the preparation required was, that a hole should be drilled through one end of the body chosen. The remaining apparatus consisted of a piece of strong thread and a needle, such as is used in sewing up dead bodies. The mode of application was as follows:—The string was passed through the hole in the end of the body; the needle was threaded with one end of the string, and laid with its concavity resting on the fore-finger of the left hand, which was then passed up along the cord within the external ring; the needle was then turned round, so as to bring its point upwards, and passed, with an inclination to the left, through the textures, and brought out on the surface of the abdomen; the other end of the thread was then passed through the parietes in the needle was to the right; the two threads were then pulled tight enough to draw the body up the canal, and up it must go. The piece of tube, as in Mr. Wutzer's operation, was smeared with cantharides ointment, to irritate the skin and favor the formation of adhesions. The two ends of the thread were then tied together;

and, to prevent any chance of cutting through the skin too fast, a bit of elastic bourgie was placed below them. For three or four days, or a week, a compress was placed over the groin, and retained in position by a bandage; and this was the whole process.

Mr. Syme presented to the Society a patient on whom the above operation had recently been performed. He was a seaman, twenty-one years of age, and had suffered from inguinal hernia for two years. The aperture was wide, and the tendency to protrusion very strong; it was, therefore, in every way very desirable that a radical cure should be effected. The patient was admitted on the 30th of last January; the operation was performed on the 1st of February; the tube was removed on the 11th; on the 25th the patient was up and walking about the ward, and had done so ever since. No truss had been worn till this evening; but, as the patient had some distance to come, Mr. Syme had thought it advisable to have the precaution of having one applied. The members of the Society might satisfy themselves that there was now no tendency to protrusion, no impulse on coughing, and that the parts concerned felt firm and indurated. The object of the operation had, in short, been perfectly attained, and the finger could be introduced nearly to its whole length up the invaginated portion which still retained its place. How far the cure in such cases would be permanent, Mr. Syme was not prepared to say; Mr. Wutzer must be responsible for the permanency of the result. What Mr. Syme had done was to facilitate the operative procedure, and to attain Mr. Wutzer's object in the simplest way, and with means which every surgeon had in his possession. An objection had been made to the operation on the ground that it excited too much irritation; but this very irritation was useful in exciting such an amount of adhesive action as was required.

Mr. Syme added, that the above was not the first case in which he had operated; but that he had done so repeatedly, and in no case with any bad effect.—*London Medical Journal.*

On the Cause and Treatment of Stertor.

BY DR. BOWLES.

THE cause of the loud and deep laryngeal sound which is known as stertor, is in general owing either to a partial paralysis of the soft palate, or to a falling backwards of the paralysed tongue, or to a collection of mucus in the pharynx and air passages. In repeating Marshall Hall's experiments on respiration, the author found that the closure of the pharynx by the tongue, was the usual cause why air would not penetrate into the lungs. On the other hand, when the body was placed in such a position that the partially paralysed tongue would fall away from the posterior wall of the pharynx, artificial respiration was easily carried on. This fact proves of how much importance is the position of the body in attempts at resuscitation. Syme relates that he saved a patient who was threatened with asphyxia from chloroform, by simply pulling forward the paralysed tongue by means of a hook. The author brings forward cases in which stertorous breathing was entirely removed by merely changing the position of the patient. One is a case of sudden apoplexy, in which the stertorous breathing was arrested by merely turning the patient on her side. The second is a case in which a man dying from inflammation of an emphysematous lung, had the stertorous breathing removed and his life apparently prolonged, by the same means. The third case was one of stertor, following a succession of epileptic fits; here the steitor was relieved and recovery undoubtedly hastened by placing the patient on his side. A fourth case is one of typhus, in which the patient was dying in a state of coma. The author then observes: The change of position must, of all the parts concerned in giving rise to stertor, affect principally the tongue. 'When the mouth is shut, the lower jaw is almost at right angles to the spine, and the symphysis is then farthest removed from the vertebral column; the root of the tongue does not come into contact with the posterior wall of the pharynx, on account of the muscles that hold it forward, the genio and hyo-glossus not being long enough. But on opening the mouth, or by anteflexion of the head, the symphysis of the jaw describes a curve in the direction of downwards and backwards, and the root of the tongue must approach the posterior wall of the pharynx—a fact which was proved by direct observation on the dead body.

In experiments performed on himself, the author found that snoring and stertorous breathing through the mouth were not easily produced when lying on the back with the mouth open and the head bent backwards. Deep vibrating snoring during sleep with the mouth shut, is owing to the nasal pharyngeal opening being obstructed by the tongue pushing the soft palate upwards, which is thus thrown into vibration by the passage of the air. Sometimes the soft palate sinks down on the tongue, the mouth being half opened, and vibrations are then produced. These two varieties of stertor are described as "palatine stertor." The rough, sharp sound which is heard in apoplectic patients, with the mouth wide open, is formed low in the pharynx, and is caused by the passage of the air to the lungs being obstructed in consequence of the root of the tongue closely approaching the posterior wall of the pharynx; this is pharyngeal stertor.

The above observations meet with their application in the treatment of apoplexy. In those cases, for instance, in which no effusion of blood has taken place, but where there is only cerebral congestion, caused either by valvular heart disease, aneurism, or derangement in the pulmonary circulation, it is evident that everything that tends to obstruct the circulation, must exert a most injurious influence on the disease. For instance, a subject of diseased heart, after some violent exertion, is seized with apoplexy. Placed in bed, and laid as is generally the case, on the back, his breathing suddenly becomes stertorous, respiration is rendered more difficult, congestion of the lungs follows, the right side of the heart is overloaded with blood, the veins of the neck and brain becomes gorged with half-oxidized blood—which engorgement acts as a mechanical cause for effusion, to take place from the already overloaded cerebral vessels. If the patient, however, is placed in a proper position, respiration will go on freely, and his chance of recovery will certainly be increased. More particularly is this the case when the cerebral congestion is connected with a diseased state of the arteries, as is so frequently the case, as under such circumstances even a moderate obstruction to the circulation will act as a cause of effusion. In other cases of apoplexy where effusion has already taken place, particularly as the result of fracture, our chances of saving the patient with appropriate treatment will be much diminished if the respiration is stertorous, so that the return of venous blood from the injured part is interfered with. In many such cases, the mere change of the position of the patient may decide the question as to his death or recovery.

[We have taken the trouble to translate the above paper from *Schmidts' Jahebucher*, as we think it one of much practical importance. It originally appeared in English, in the *Transactions of the Medico Chirurgical Society*, but as we do not receive this work, we have translated it, omitting, however, the cases by which the different forms of stertor are illustrated.—ED.]

On Death from Chloroform.

BY W. MARCET, M. D., F. R. S.

THE case of death from chloroform, reported by Dr. Dobbie, in the *Medical Times and Gazette* for the 29th of June, induces me to offer your readers a few practical observations on this subject.

When chloroform is inhaled, and consequently brought into contact with the air-cells of the lungs, it passes rapidly into the blood, by means of which it is carried to the brain. If the administration of the anæsthetic agent be suspended, the chloroform will be eliminated from the body by the respiration, each inspiration displacing most of the vapor contained in the blood exposed by the lungs to the action of air during that inspiration. The elimination from the blood of any very volatile substance possessed of a stable chemical composition may be considered, as a rule, to take place through the lungs. This might have been anticipated by a consideration of the displacement of the carbonic acid of the blood by the air inspired, and has been placed beyond doubt by a well known beautiful experiment of Claude Bernard, where an aqueous solution of sulphuretted hydrogen being injected into the blood of a dog, the animal in the course of one or two minutes expires the whole of the poisonous gas. Messrs. Lallemand, Perrin and Duroy, have shown experimentally that this law is applicable to chloroform, and consequently there is not the slightest doubt that when blood contains chloroform it is removed therefrom by means of respiration.

If the air inspired be pure, the displacement of chloroform from the blood in the lungs will be very great; if this air should contain chloroform the displacement will be less, just as when air containing a large proportion of carbonic acid is breathed, the removal of the carbonic acid of the blood is checked. When a patient begins to inhale chloroform, a portion is absorbed by the blood, the remaining is expired; but shortly afterwards, in addition to the expiration of that part of the chloroform, which has not been taken up by the blood, a certain quantity of that which has been absorbed is also ejected, being displaced by the air mixed with the chloroform inhaled. At this stage, however, there is still an accumulation of the anæsthetic agent in the blood, more being taken into the circulation than given out; gradually complete insensibility is produced, and the handkerchief is removed from before the face of the patient; he now begins ridding himself of the chloroform, and recovers consciousness, unless more of the anæsthetic agent be exhibited. By the careful administration of chloroform the state of insensibility may be kept up for a considerable length of time; during this period it is obvious that the accumulation of the vapor in the blood no longer takes place, otherwise it would invariably produce death, there must consequently be equilibrium between the quantity of chloroform absorbed, and that which is displaced and eliminated by the process of respiration. If, during this stage of insensibility from any cause whatever, the power of absorption of the blood for chloroform be suddenly increased, or its property of giving it out to the air inspired be diminished, then death will take place from an accumulation of the vapor in the blood. It is difficult to imagine that the power of blood of absorbing the substance under consideration should be suddenly increased; but there is a very simple cause impairing its elimination from the blood, viz.: the administration of the chloroform vapor in too concentrated a condition. Just such an excess of carbonic acid in the air prevents or interferes with the elimination of that contained in the blood, so must an excess of chloroform in the air prevent or interfere with the exit of chloroform already existing in the blood; therefore, the blood goes on taking up chloroform, and giving out less than a quantity equal to that absorbed, at the same time the evil may be increased by a few deep inspirations taken unconsciously, although apparently with the view of ejecting the poison, and life is suddenly extinguished.

This view would perhaps partly account for the case of death reported by Dr. Dobbie; in addition to which I might observe, that the patient being a drunkard, we may assume that the action of his lungs was more or less impaired from their being continually engaged with the elimination of alcohol; the delicate membrane of the air-cells was, probably, thickened, which at first acted more or less as an obstacle to the admission of chloroform into the blood. A statement of the author referred to, appears to support the present assumption; he observes, "for two or three minutes he, (the patient) did not come much under the influence of the drug (chloroform), inhaling it, however, readily enough." It was, therefore, apparently some time before the patient could be narcotised, as is the case, if I mistake not, with most drunkards. The exhibition of chloroform being continned, more of it found its way into the blood, while we may surmise that the elimination of the vapor already absorbed was checked from the thickened condition of the pulmonary membrane, which interfered materially with the action of the air inspired along with the chloroform; or in other words, the chloroform passed through the lungs into the blood, while the air was unable to do so with a sufficient degree of readiness to remove an equal quantity of the vapor out of the blood; from this circumstance there resulted an excessive accumulation of chloroform in the blood.

From the foregoing observations we may conclude:—

1. That chloroform must be administered cautiously, and its effects watched with particular attention, if, although the vapor be freely inhaled, the patient does not become insensible within the usual time.

2. That in every case where chloroform is administered, as soon as the state of insensibility is obtained, the vapor must be exhibited diluted as much as possible with pure air; and air free from the anæsthetic agent ought to be allowed frequently into the lungs, to remove the excess of the vapor present in the blood.

3. That during the administration of chloroform great attention should be paid to the state of the respiration, which ought to guide the exhibition of the anæsthetic agent still more than the condition of the pulse. If the inspirations becomes less deep and respiration appear failing, air free from chloroform ought to be immediately allowed into the lungs, not only because this state of the respiration is an indication of there being an overdose of chloroform in the blood, but also because the diminished respiration is in itself a cause of danger by preventing the blood from ridding itself of the chloroform it contains.

4. That when a patient has sunk under the effects of poisoning by chloroform the only means of restoring animation is by artificial respiration, adopting such method as is best calculated to introduce as much air as possible into the lungs in order to remove the poison from the blood, at the same time stimulating the action of the heart.

It is due to Messrs. Lallemand, Perrin and Duroy to state, that they have already called attention to the importance of looking closely to the respiration during the administration of chloroform; but these gentlemen have overlooked the fact that the presence of an excessive proportion of chloroform in the air inspired must act more or less as an obstacle to the elimination of the vapor which has already been absorbed —a circumstance which ought to be taken into consideration on every occasion where chloroform is exhibited.—*Medical Times and Gazette.*

Case in which the Entire Diaphysis of the Tibia was Removed.

M. Maisonneuve has laid the following case before the Academie des Sciences:—A young man, whose age is not stated, consulted him in August, 1855, on account of a fearful condition of the right leg, which had been developing itself for two years, in consequence of a fall he had sustained during gymnastic exercise. The limb was treble or quadruple its proper size, and traversed by deep ulcerations, through which the entire shaft of the tibia was felt to be in a state of necrosis. All whom he had consulted, including M. Velpeau, advised immediate amputation. The author, encouraged by the success which had attended former cases, resolved to endeavor to remove the dead bone by a *subperiosteal* operation. Chloroform having been administered, an incision, thirty-five centimetres in length, was carried down the anterior surface of the tibia, penetrating to the bone through the periosteum, which was thickened and already lined by a new, soft, spongy, osseous layer. A transverse incision having been made at each end of this long one, the state of the tibia was carefully examined; and it was found entirely dead throughout its whole length and thickness,—the articular epiphysis alone remaining sound. The mortified bone was then isolated, and with some difficulty removed. All went on perfectly well, only moderate fever followed, the bad character of the suppuration ceased; and after the fortieth day the young patient was able to walk with crutches, as after an ordinary fracture. So complete was the reproduction of the bone, that had the bone which had been removed not been preserved, the reality of the occurrence might have been doubted. At the present time this young man is strong and vigorous, the bad leg in no wise differing from the other, having grown at the same rate as it, and allowing of the most active exercises, such as running, leaping, and the like, without any inconvenience.

The removed tibia was laid before the Academy, and the author states that it is his intention shortly to give an account of the various subperiosteal operations which he has performed, and which he states may be distributed into the following groups:—1. Bones in a state of complete or partial necrosis, with or without their articular surfaces. Bones simply affected by osteitis. 3. Bones suffering from various forms of degeneration. 4. Healthy bones, the ablation of which has been rendered necessary by special circumstances, as *e. g.*, the formation of an artificial channel in search of a deeply-situated tumour.—*Comptes Rendus*, 1861, No. xi.

In a subsequent communication to the Academy, M. Maisonneuve narrates the case of a man, thirty-five years of age, in whom, on account of necrosis of the whole of the right side of the lower jaw, he operated the *subperiosteal extraction* of the whole of this bone (leaving the gums and teeth, however, intact), including its vertical ramus with the coronoid apophysis and its condyle—thus leaving the teeth alone suspended by their gums. This occurred in 1854, and now the new jaw is found to be so exactly reproduced that there is some difficulty in detecting the side on which the operation was performed. The teeth, however, after two or three years, fell out. - *London Medical Times and Gazette.*

The power of granting the Degree of Master in Surgery, in accordance with the Medical Act, has recently been conferred on the University of Cambridge.

On the Period of Incubation in Small-Pox.

BY PROFESSOR DR. VON BARENSPRUNG.

THE author in this paper gives the abstract of several cases, showing that in small-pox the interval of time between the infection and the eruption is always the same, even under the most varied circumstances. It is well known that in cases of *inoculation* the local affection began about the fifth day; from the eighth to the ninth the eruptive fever set in; and from the tenth to the eleventh the general eruption. But the action of "*contagion*" has been considered as less uniform, and the period of incubation has been variously estimated by writers. For example, Naumann states it to be three days; Wilson, at from four to twenty days, Canstatt, at from eight to fourteen; Heim, at nine days; Hufeland, at fourteen days; whilst according to Huxham, the eruption may be delayed for a month after the infection. Moreover, whilst fourteen days is considered by most as the medium period of incubation, it is considered that the character of the epidemic, as also the greater or less susceptibility of the patient, may modify it. The cases adduced by the author are certainly remarkable, and have all the character and vaule of direct experiment; they are as follows: On the 20th of January, 1851, a female who had never been vaccinated, fell ill of confluent small-pox eight days after coming to stay in Halle, in which place, at the time, no cases of this disease existed. She died on the sixth day. On the 27th the body was examined post-mortem by Dr. Meckel, in the presence of several students and medical men; and as a result of the examination, no less than seven persons became ill of the small-pox. Of these, four had been present at the inspection, and three others were persons in close intimacy with those who had been present. In every one of these cases the disease broke out at the same time—namely, between from twelve to thirteen days afterwards.

A brief and condensed summary of these cases will be read with interest:

CASE I.—A student began to be affected on the evening of the 8th of February; on the day following the fever greatly increased; on the morning of the 11th a roseola on the hands and feet appeared; on the 12th numerous red knots were seen over the whole body, which soon became actual pustules. The patient was well at the end of the month.

CASE II.—A student felt unwell on the 8th of February, and on the 9th was in a high state of fever. The eruption appeared on the 13th. Termination favorable.

CASE III.—A student was taken ill on the 9th of the month. The eruptive fever was active, but the pocks only very scanty. Termination favorable.

CASE IV.—A physician was affected with fever during the night, between the 8th and 9th of the month. Eruption on the 13th. Same termination.

CASE V.—A student who lived with one of those who had been present at the post-mortem examination, but who was not there himself, being previously in sound health, became ill on the 8th, and on the 10th was in a state of high fever, with headache. Two days later the pocks broke out. Termination favorable. He had been vaccinated.

CASE VI.—A physician who was present at the inspection, had carried home a piece of the skin affected with the disease for examination. He remained unaffected himself, but his wife, who was pregnant, and who had been vaccinated in her youth *and only a year previously, with good results,* began on the 8th of the month; the day following, high fever. On the 10th delirium; on the 11th a scarlatina-like rash on the skin, delirium at evening; and on the 12th she was prematurely confined. On the 13th, remission of fever and lessening of the skin affection. The child lived fourteen days, and was unaffected by the disease.

CASE VII.—Was the child of the attendant at the post-mortem examination, who had sewn up and washed the body. It had not been vaccinated, and although its father and mother remained unaffected, fell ill on the 8th of February; on the 11th the eruption began, and on the 12th the whole body was covered. It died on the 14th with pulmonary symptoms.

Such are the various cases related by the author, which are so uniform in their nature, and occurred under circumstances so favorable to precise and scientific observation as to afford material for most trustworthy and valuable deduction. As he remarks, it is not a little remarkable that seven people so differently circumstanced and predisposed, some being vaccinated, others not so; some being adults, others children; some male, and others female, should, in spite of these differences, be all affected at the same period after exposure to contagion, (and this notwithstanding that the intensity of the contagious influence was very unequal,) for in every case the outbreak was between the thirteenth and fourteenth day after. The development of the skin-inflammation in the numerous cases was less uniform.

The author closes by relating one or two other cases which completely support the above observations, and which occurred under his own immediate notice in 1858.—*Medico-Chir. Review.*

* * *

ON SCARLATINAL ALBUMINURIA—(TREATMENT BY QUININE.)—In his communication, Dr. Hamburger confines himself almost entirely to the treatment which, in his experience, has proved most successful. Premising that in scarlet fever the albumen can be considered neither as the result of excessive susceptibility of the skin to cold, &c., nor to any alteration in the mass of the blood allowing of transudation from the vessels, nor indeed as a secondary phenomenon whatever, he attributes it solely to the localization of the virus upon the kidneys, the dropsy being a manifestation or expression of the specific affection, analogous to the primary effect of the virus upon the throat or the skin.'' As respects the treatment, the doctor inveighs strongly against the use of digitalis, which diminishes the urine and renders it bloody, and increases local effusion; and also against diuretic remedies, even the mildest; and thinks that vinegar, so useful in Bright's disease, as also mineral acids and hot baths, are useless. The remedy which he has found above all others of service, is quinine. Under its use the fever diminishes, the urine is rendered more abundant and less bloody, and the appetite and general power increased. The amount of albumen does, however, diminish. This remedy was used in 47 severe cases; in 44 cases improvement was at once or very speedily manifested; in three cases only was there absence of result, good or bad, but these recovered. When employed in chronic cases, improvement follows the first doses almost immediately—most quickly in adults. In acute cases the quinine must not be at once administered. The dose should be, to infants, from 8 to 10 centigrammes a day, and to adults, from 15 to 20. Its bitterness has alone prevented him from trying it as a prophylactic after the early period of scarlet fever. During the use of the remedy the diet ought to be antiphlogistic, and confined to fluids. An interesting case is quoted at length, showing the value of quinine in a subacute case, in a child.—*Ib.*

Subacute Laryngitis---Tracheotomy.

C. C., aged 44, a stonemason, was admitted into St. Thomas's Hospital, on February 13, 1861, under the care of Dr. Peacock. He stated that about four weeks before, when following his usual occupation in the Regent's Park, he took cold, and suffered from difficulty of breathing and cough, and had been gradually getting worse since, till four days before his admission, when he was taken suddenly very seriously ill, with the usual symptoms of laryngitis. It subsequently, however, appeared that he had had a cough and expectoration since the cold weather in the autumn, and had been losing flesh and strength. He stated that his family had none of them had any symptoms of consumption, and that he had never had any venereal affection.

The following notes were taken on the 14th:—He is breathing with great difficulty, and is generally compelled to sit upright in bed. His respirations are 16 to 18 in the minute. The inspiration is very prolonged, and the expiration short, and the interval also very long. The inspiration is attended by a loud stridulous sound, while the expiration is almost inaudible, and the difficulty of breathing is much greater when he is in the recumbent position. The chest is small and contracted, and especially fallen in under the clavicles, and the resonance on percussion is much impaired in all parts. There is very little movement of the chest with the respiratory acts, and the respiration is almost entirely abdominal. He complains of pain in swallowing and speaking; but his voice, though somewhat hoarse, is not husky or deficient in power. There is no fullness of the throat, and he does not complain of any tenderness on pressure at the sides of the larynx, and his face is not flush, but pallid and shrunken. He has not much cough, but expectorates a considerable quantity of black pellity sputum, containing some large air-cells. The pulse is 92, somewhat large but compressible. The cardiac dullness is not increased in extent—the sounds are flat, but without murmur. There is some redness, but no material swelling of the fauces. The epiglottis cannot be seen on looking into the throat; but when the finger is introduced the epiglottis is felt to be closely applied over the surface of the larynx, and its sides are drawn together, and the larynx so closely applied to the posterior wall of the pharynx, that the finger cannot be passed between them.

After his admission he had been placed in the bath, and had taken an emetic and dose of castor-oil, and he had since had two grains of calomel, and a quarter of a grain of the potassio-tartrate of antimony, every twenty-four hours. He had not, however, obtained any relief. A blister was applied behind the neck; he was directed to take chloric ether, and tincture of hyoscyamus, and to inhale the vapor of warm water. After a further interval of seven hours, as the difficulty of breathing was no less and he was becoming more prostrated, it was determined that tracheotomy should be had recourse to, and the operation was performed by Mr. Le Gros Clark, and great relief was immediately obtained.

18th.—When seen by Dr. Peacock, on the morning of the 15th, he was very much improved in appearance, his pulse was quiet and of better volume, and the air entered much more freely into the chest, so that the resonance on percussion was everywhere much clearer, and vesicular breathing could be heard. Since that time he has continued to improve. He took his dinner yesterday with an appetite, and to-day expresses himself as feeling quite well. Expression of countenance natural, face less pallid; pulse 80, somewhat feeble; skin warm and moist; respiration 16 in the minute; inspiration and expiration full and prolonged; chest fairly resonant on percussion on both sides, and less fallen in under the clavicles, but the movement is still less than it should be, and the respiration is chiefly abdominal. The vesicular murmur cannot be heard from the sound in the tube. The larynx is still very much drawn down, but the epiglottis is not contracted, so that the finger can be passed behind it. Its edge is rough, but the posterior surface quite smooth. He speaks with a much clearer voice, and can breathe for a short time through the natural passage when the tube is blocked up.

25th.—Expression of countenance quite comfortable. Pulse 80, quiet, of good volume, and moderately firm. He sleeps well, takes his food with appetite; it agrees well, and the bowels are regularly acted upon. On the 22d the tube was removed, and was found firmly stopped with secretion; a much smaller one was introduced, and the cleaner has not since been removed, yet he breathes tranquilly by the nostrils. Respiration is more thoracic than before, and fuller. The resonance on percussion is natural, but the respiratory murmur is somewhat inaudible, being masked by the sound in the trachea. The cardiac dullness on percussion is limited in extent; the heart's sounds are flat, but without murmur; the interval between the pulse and beat of the heart is very slight, the radial pulses are equal in force and synchronous. To have the quinine and iron mixture twice, daily. It was thought better to retain the tube for a short time longer, for fear of any return of the dyspnœa, if the aperture were allowed to close. To be allowed to leave his bed. The tube was finally removed on March 12th.

March 14th.—The aperture is now nearly healed; he has been entirely free from difficulty of breathing since the removal of the tube, and speaks with a sufficiently loud voice, though he is still somewhat hoarse. He has no cough, and very little expectoration. His appetite and digestion are good. His pulse quiet, and he is gaining flesh and strength. From this time, and except that he had some slight stitches in the side from cold, and an occasional laryngeal cough, he continued steadily to recover, and was discharged cured on April 4th.—*London Medical Times and Gazette.*

[We have lately seen three cases of this somewhat rare disease, and are of opinion that this state of the larynx is connected with the erysipelatous tendency that at present exists. One case was in an adult, aged about 40, in which life was saved by tracheotomy. Another case in a child about 4 years old, in which death took place whilst the operation was being performed, it having been delayed too long; and a third in a child about 18 months old, in which the disease yielded to emetics and diaphoretics, and the local application of a solution of perchloride of iron.—ED.]

APPLICATION OF COLLODION IN A CASE OF PHLEGMATIA DOLENS—M. R. de Latour relates a case of phlegmatia dolens, attended with great local tumefaction, and increase of heat, and by fever, as shown by a pulse of more than 120, which rapidly yielded to the application of a mixture of collodion and castor-oil. This is only one of a series of observations by the same practitioner, demonstrating the high value of impermeable applications to the surface in inflammation. According to his theory, the primary circumstance in inflammation is an increase of animal temperature, an increase which is maintained as long as the surface is allowed to remain in contact with the air. Inflammation is a local exaggeration of the same function, and cutting off communication with the air is the most certain means of reducing such exaggerated action.—*L'Union Medicale.*

Communications.

Remarks on Yellow Fever.

BY A. P. HAYNE, M. D.

[CONCLUDED.]

In the two previous numbers of this Journal, we have presented some of the most striking—external or physical, and internal or remote—symptoms of Yellow Fever, as observed in a large number of cases, under our own observation. In order to complete the subject, it is necessary to glance at the pathological anatomy of the disease. This we shall attempt in the present communication, and with it conclude our remarks on this subject.

It may be said to be comparatively within recent date, that the study of pathology, as applied to the elucidation of disease, has assumed that importance to which it is entitled. It is to the pathologists of the present century, that we are indebted for the impulse given to this important link in the chain of rational medical inquiry; and to the labors of Morgani; Vasalva, Laennac, Andral, Louis, and others, that we are to look for the foundation upon which subsequent researches are chiefly based. The ultimate end and object of all medical inquiry being the cure and prevention of disease, what can be more calculated to solve the mysteries by which we are surrounded, or facilitate us more in the selection and application of appropriate remedial agents, than the study of diseased organs, in their various stages, and the investigation of the causes by which these changes have been produced? If with our limited capacity of observation, and all the attention and assiduity we may bring to our aid, we cannot obtain all that might be desired—if, after all our efforts, there is still much beyond the grasp of finite intellect, surely we are not on that account to reject so essential an instrument of progress as unsatisfactory and unimportant. Such a course would be but to render advancement and discovery impossible, and sink our profession in a state of hopeless apathy, rendering it justly an object of the contempt and sneers of the world. But we are not, fortunately, in so lamentable a predicament. The impulse of our calling is onward, and the brilliant discoveries of modern times have already dispelled much of the darkness which surrounded us. With these preliminary remarks, we pass at once to the investigation of the true pathology of the disease.

From the remarks already made in reference to the changes in the mucous membrane of the stomach, it must at once appear, that whether we regard them as primary, or secondary causes, in the list of pathological conditions, they afford striking evidence of the gravity and rapidity of the disorganization of the disease, and as such deserve our special and careful attention. Among the chief of these, we would call attention to the change of color, consistency and thickness, as the most prominent and tangible. In regard to the first, we may safely affirm, that it is generally sufficiently uniform to deserve special consideration. In the epidemic which prevailed at Gibraltar, in 1828, the color of this membrane was found to be natural in only three cases, while in all the others, without a single exception, it varied from a deep red, to a slight rose or orange.* Nor did this uniformity vary in our own cases, they being all characterized by the same appearance, so that the description given by Louis, will apply equally to our own. Our observation has not been ample enough to enable us to say, how far this may be modified, in cases in which pure, unchanged blood, is found in the stomach; nor have we ever seen a case, in which that peculiar appearance, said to resemble "onion parings," has existed. With regard to the extent and locality of this change in color, we have already given the result of our observation, and pass, therefore, to the changes in the consistency. Louis found this normal, in only two cases. In all the others, it was more or less diminished.† Here again we find a striking similarity to the results of our own autopsies. With this diminution of consistency or softening, there was observed in the Gibraltar epidemic, "more or less mamellonation." In this respect our cases presented somewhat an exception, the mamellonation being both less frequent and less marked, but corresponding more closely to the description given by Dr. Nott, of Mobile, in the epidemics of that city in '43 and '44.‡ We next notice the changes in thickness. The same may be said in regard to this, as of color and consistency. Whether we compare our cases with those occurring at Gibraltar, Mobile, New Orleans, or other cities, we find but one general and common statement—a uniform thickening in all. In each of these respects, then, (subject, of course, to individual exceptions in particular cases,) we have again a uniformity, which must establish inconvertibly, the changes in the gastric mucous membrane, as one of the pathognominic anatomical characters of the disease. In connection with this, we proceed to the contents of the stomach, and here we are met with the inquiry—"What is black-vomit?" We have neither time nor inclination to enter into any elaborate discussion of the various theories which have been maintained on this point. Suffice it to say, that facts incontrovertible in themselves, and experiments most carefully instituted, have led to the conclusion, now universally adopted, that black-vomit is neither more nor less "than blood mixed with the fluid secretions of the stomach, and derived directly from the surface of the mucous membrane."§ Whether this local hemorrhage take place gradually, "by oozing," mingling slowly with the secretions, or suddenly and rapidly, is another question, and one which is of little moment to our present purpose. If black-vomit be nothing but vitiated bile, as was maintained by Rush, or an altered secretion from the intestines, or a secretion *sui generis*, as maintained by Professor Dickson, how are we to explain or account for the presence of blood corpuscules? How are we to do away with the epithelium scales, if they are not unmistakeable evidences of a local hemorrhage?

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* Louis and Trousseau on Yellow Fever. † Ibid.

‡ Am. Journal Med. Sciences, 1845. § Cragie's Element. Path. Anat.

Besides black-vomit, we often find other matters in the stomach. These, however, generally consist of mucous, more or less changed in character, and bile, either in its pure state, or mixed with liquids taken. These have, however, no connection with the disease itself, and are to be regarded as entirely accidental and adventitious.

We pass next to the changes observed in the liver. This important organ, together with the gall bladder, was very early supposed to act an important part, and undergo material changes in a disease chiefly confined to miasmatic regions. It was not, however, until the researches of the illustrious Louis, that these changes were clearly pointed out. These may be said to be two-fold, viz.: in color and texture. In selecting a phraseology sufficiently descriptive of the first, that great French pathologist has denominated it as "cafe au lait," while others have preferred the terms "ochre," "gum yellow," "pistachio," "orange," &c. All these terms indicate a change or alteration, functional or organic, for we can scarcely regard them as accidental, or the result of common causes. As far as we have been able to judge, we have found the liver generally of a pale yellow, or straw color, and we are disposed to regard the differences of shade as the result of a previous condition, modified by the duration and nature of the disease. Of far greater importance than this, however, is the texture. When we use the terms "hard, dry and friable," we will at once comprehend the extent of the changes which this important organ undergoes. The first seems to be dependent upon a partial suspension or interruption of its ordinary functions, and although by no means peculiar to yellow fever, yet it seems to be different from that condition ordinarily known as induration. Its peculiar dry and bloodless state contra-indicates the theory of congestion, and implies something at once novel and strange, while its friability shows a process of disorganization, dependent doubtless on one or both of the others. Whatever explanation we may attempt to give of these changes, one thing at least is certain, that they do constantly and uniformly occur, and are different from those noticed in other diseases. Dr. Arnold, of Savannah, and Dr. Ashbel Smith, of Galveston, describe a "pale or ash colored" liver; and M. Catel, in speaking of one hundred and fifty autopsies made at Martinique, says, "he always found the liver 'decolore.'"* In none of our cases can we say we have noticed this appearance; the only departures from the uniform coffee or ochre appearance, being a brownish hue, accompanied with a general granular degeneration, which we were convinced was in no way connected with the disease itself. In relation to the gall bladder, we have almost always found it filled, or partially so, with dark, tenacious bile, of a pinkish color. Its internal surface was, in some instances, injected; but in no case have we seen anything like positive hemorrhage.

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* Rapport, &c., par M. Chevrin.

In connection with the biliary organs, the alimentary canal deserves our next attention. We shall confine our remarks to two peculiarities, which are the most common. The first, is the presence of that peculiar black-coffee-grounds fluid, which is generally confined to the small intestines; and the other, the general injected appearance, accompanied sometimes with more or less softening of the mucous membrane. That the former is identical with the substance called "black-vomit," we have already expressed our firm conviction—a conviction based upon observation as well as experiment. It remains for us, therefore, only to consider its origin and cause. The close similarity between this membrane and that of the stomach, renders it at least plausible to trace it to the same cause; and we think there can be little doubt on this point, when we find the same general appearance and blood globules, under the microscope. With regard to the injected appearance, all that we have to say, is, that we have not only found it a general, but an exceedingly common characteristic; and account for it as we may, it must be regarded as one of the peculiarities of the disease.

We pass next to the urino-genital organs. Under the former, the kidneys and bladder demand a passing notice. In speaking of the urine, we have already noticed some of the changes observed, and expressed our opinion as to their value and importance. We confine our remarks, therefore, simply to the general appearance of these organs as observed after death. In both we find the congestive appearance noticed in the organs already described, with this exception, perhaps, that in the bladder, next to the stomach and bowels, (and the uterus, as will be seen presently,) are we most apt to find a positive local hemorrhage. Our cases presented numerous examples of this, and while we cannot positively assert the same with regard to the kidneys, still there is generally sufficient evidence of a violent internal congestion, showing that these organs are not exempt from the general hemorrhagic tendency of the disease.

In noticing the generative apparatus, we shall speak only of the uterus and ovaries, having failed to detect any positive hemorrhage in the testicles, although frequently examined by us, in reference to this point. In the uterus of every female examined we found more or less blood, and in the ovaries of each, either a recent coagulum, or positive traces of hemorrhage. How are we to explain the presence of this blood? We were satisfied by careful observation, that none of the females were menstruating at the time of the attack or during their sickness, and as a more positive proof of this, no traces of blood were seen in the vagina, or at the os tincæ, after death. We can explain it in no other way, but by regarding these organs as liable to the same hemorrhagic diathesis, and undergoing the same pathological modifications as the stomach. We have laid some stress upon this point, as it is one which has not attracted general attention, in the pathology of the disease, and one which we believe of considerable importance. The condition of the ovaries, viewed in connection with this, adds additional weight to ou views, and illustrates the nature of the important changes which take place in these organs.

Of the spleen, pancreas and mesentery, we have but a word to say. The former we have found mostly of a darker color and somewhat larger than natural. The chief variation from health was in its friability. The pancreas and mesentery presented nothing worthy of special remark. We have reserved, for our concluding remarks, the little there is left to say, concerning the thoracic organs—for our researches in regard to the brain and its membranes, offer nothing positive or satisfactory. The heart and lungs occupy an important position in most acute and inflammatory diseases, and in Yellow Fever, it is now well known that the latter is the seat of one of the most strange, and until recently, inexplicable changes met with in any disease. Without attempting an explanation of the "black spots," so frequently met with, we simply proceed to show how far they have corresponded in our cases with the observations of others. We have not found them always present, and in this respect our observations differ somewhat from that of Louis. As regards their precise situation, they have seemed to us to be pretty equally distributed over all the anterior portion. They are peculiar, and not easily overlooked, and as we have never met with them in any other disease, we are forced to consider them as belonging exclusively to this form of fever.

In relation to the heart, we have seen nothing to indicate any peculiarity worthy of notice. We have found it filled, or partly so in the majority of cases, with blood in a liquid state, often coagulating when exposed to the air. Its texture has been normal, and except a bright yellow coloring, in the semi-lunar valves, we have observed nothing entitled to comment.

We feel that we have but imperfectly performed our task, and that the space we have occupied might have been much more profitably employed. Our only apology is to be found in the practical nature of what we have attempted. We deem no apology necessary for having followed the admirable arrangement of Bartlett, in his "Treatise on Fevers," to whose valuable researches we are indebted for much useful information and assistance.

Extensive Fracture of the Ribs, with Perforation of the Lung---Death on the Fifth Day.

BY JOHN B. TRASK, M. D.,
Acting Assistant Surgeon, U. S. A.

One of the most extensive cases of this accident, occurred in this city, on the 21st October, of this year. Considering the great number of ribs broken and comminuted, together with the perforation of the lung, and the period which the patient survived after receiving the injury, I have thought it worthy of record, as one among the remarkable cases that at times are met with in practice.

CASE.

Capt. John Lendrum, 3d Artillery, U. S. A., while riding down Powell street in a light carriage drawn by two horses, was thrown from the vehicle in consequence of a collision at or near the junction of Chestnut street; the collision killing one of the horses on the spot. At the moment the horse was struck by the car, the carriage was also overturned, and the deceased with his friend were thrown between the track and carriage, to the right of the latter, and they lay upon the ground in the same relative position which they maintained in the vehicle. The patient was immediately conveyed to the County Hospital, which was near by, and there placed in bed.

I saw the patient about 8 1-2 o'clock, P. M., nearly three hours after the injury had been received; Dr. McCormick, Medical Director of the Department, had reached the Hospital about a half-hour previous. Knowing that the patient was an officer of the post at which I was in attendance, and also that Maj. Burton, commanding, had ordered my attendance with the Director, he courteously awaited my arrival. On reaching the hospital, I found the patient in the following condition: Face and lips pale, pulse 130 and small, much anxiety in the expression, conjunctiva white, feet cool, the arms of both sides thrown outward, and the forearms flexed upward. Respiration was labored and very difficult, slow and much interrupted, and was accompanied with most acute pain. Consciousness was perfect, but articulation was nearly impossible. Much effort was required by the patient to answer questions in monosyllables only; his answers were very slow, but distinct, and correct.

On placing the ear to the chest, (the loud, humid rattling, easily heard in any part of the room, and which thus had a guttural sound,) was found to pervade the entire lung of the left side, and the same condition was present also in the right lung, but in a minor degree. The patient was expectorating florid blood, filled with air vesicles, every few moments. I now examined the seat of the injury, and in passing the hand along the side of the chest detected a long, shallow sulcus over the region of the left lung, from its summit to its base very nearly, and felt distinctly the fractured ends of five ribs; owing to the extreme pain and suffering of the patient, I desisted from further exploration, being satisfied that the extent of the injury thus demonstrated was ample to account for the symptoms present. My conviction of the least extent of the injury was communicated to Surgeon McCormick and Dr. Raymond, of the Hospital, and also that the lung was lacerated, in which they concurred, both having examined the case before my arrival. On a second return to the patient, I detected, in the course of twenty minutes, a most marked irregularity of the pulse, with intermissions, which fact I communicated to Surgeon McCormick and Capt. Gibson, remarking at the time that "his pulse was already intermitting," my belief then being that his powers of life were rapidly diminishing. It was the opinion also of the medical gentlemen named above that the patient could not well survive beyond the night.

Up to this hour (9 1-2 o'clock), the patient had received no other ment than the use of ice every few minutes. The indications in the case were clear; which were to render the movements of the chest as immobile as possible, and thus avoid one of the great causes of pain, and the further continuance of the hemorrhage, by suppressing the movements of the broken bones; it was therefore determined to bandage the chest at once, and thus secure these advantages as far as possible. The bandage was applied, and very soon after it had been adjusted a most marked improvement in the ease of respiration was manifest, and the patient, without aid, brought his arm to the side, and the fore-arm across the body. About twenty minutes after this, the patient took an anodyne, composed of tinc opii gtts 40, chloroform, gtts 30, which produced a kind effect, and soon after 10 o'clock the patient fell into a moderately quiet sleep, which was disturbed at lengthening intervals by his necessity to expectorate the more slowly accumulating blood in the bronchia. At about 11 1-2 o'clock the patient ceased to expectorate florid blood, and but little of a venous character; from this time to 12 o'clock he slept moderately easy. The humid rattling still continued, but had very much diminished. Between 12 and half-past 12 o'clock he awoke suddenly and expressed a desire to vomit; a vessel was placed for his convenience, when he ejected nearly a pint and a half of dark blood, mixed with some water, and having the odor of the opiate he had taken. It is probable that this blood on the stomach was swallowed soon after the injury was received, and it proceeded from the early hemorrhage, the patient at this time being unable to eject it by expectoration. Half an hour after the vomiting, and while he was sleeping, I examined the pulse carefully, and found the same disturbance of the heart's action as before mentioned, but in a minor degree; the pulse had also improved.

The patient rested tolerably easy from this time until 3 o'clock; all the most urgent symptoms gradually subsiding. After this hour he became wakeful and somewhat restless, when I gave him tinc opii gtts 25, chloroform gtts 10; soon after which he again went to sleep, and thus continued until morning. Maj. Andrews, Capt. Gibson, myself, and four privates of his company, remained with him during the night.

Oct. 22. At 9 o'clock this morning, Surgeon McCormick, Dr. Raymond and myself, saw the case, together; there had been such unlooked for and marked improvement in the symptoms of the case, that the patient's condition became a matter of surprise. He could speak with considerable ease; the pain of the injured side was much less severe, and the expectoration of blood had ceased. Pulse 105. To continue treatment.

Oct. 23. Assistant Surgeon Vollum relieved me at post to-day, and the case passed into his hands as attending surgeon. In company with Surgeon McCormick and Dr. Raymond we visited the patient at 11 o'clock, Assistant Surgeon Vollum now taking official charge. No alteration was made in the treatment, as the patient was as comfortable as his circumstances would admit, being nearly free from pain and rather cheerful, with neither cough nor expectoration; pulse 95. Saw him again in the evening, and he was still comfortable. Treatment continued.

Oct. 24. There has been no unfavorable change in the case during the night, and also through the early part of the day. I saw the patient about 9 o'clock in the evening, at which time a slight but very significant, short, dry cough had set in, and the patient was somewhat restless. Pulse 110; respiration was uneasy; expiration being rather longer than inspiration. There was slight perspiration over the body. There could be no mistaking the final result of the case at this time. The patient became more and more delirious during the night; all remedial measures failed to alleviate these symptoms, and on Friday morning, Oct. 25th, reliance was placed on stimulants, which were given until he died, which event took place between 8 and 9 o'clock, on Saturday, October 26th. I saw the patient twice on Friday, and the delirium, which manifested itself on the night of the 24th, gradually increased until his decease. Had this patient died without delirium, or coma, it would have been one of the most anomalous forms of death that could ensue, considering the nature of the injury he received, and its extent, as revealed by the post-mortem.

POST-MORTEM EXAMINATION.

Coroner Sheldon, presiding. Present—Surgeon McCormick, U. S. A.; Assist. Surgeon Vollum, U. S. A.; Surgeon Wooster, 5th Cal. Vol.; Acting Assist. Surgeon John B. Trask, U. S. A.

AUTOPSY BY DRS. WOOSTER AND VOLLUM.

CHEST.—Opened in the mediam line; was well covered with adipose tissue. On the left side, above and lateral to the nipple, was ante-mortem ecchymosis. On dissecting up the integuments of the left side, from the clavicle to the last rib, there was found extravasations of blood among the muscles and subcutaneous cellular tissue; the dissections of the integuments were carried laterally beyond the angles of the ribs. This exposed the entire line of fracture, and which was first examined in its outward aspect. It was found that the ribs were fractured in the manner as follows: The first rib was fractured transversely, and this was the fact also with the second and third ribs. The fourth and fifth ribs were fractured obliquely, near their angles. The sixth rib broken in two places, and badly comminuted; the seventh was broken in two places, obliquely. The eighth and ninth broken transversely.

The sternum was now removed, and on entering the chest it was found that both pleuras were adherent over their anterior and lateral surfaces, the adhesions being easily separable; the plastic exudates being recent. Lateral to the costal ends of the cartilages was ante-mortem ecchymosis over the pulmonary and costal pleuras.

The line of fractures on the inner surface of the chest, corresponded to that found externally.

On lifting the lung from its position, it was found to have been perforated completely by a portion of the sixth rib, which bone also rested against the pericardium. At the point of the pericardium, where the rib touches this membrane, was a deeply ecchymosed spot, about an inch in diameter. (It is to this fact that the irregularity of the action of the heart was due, as observed above; the patient would, on several occasions, refer its action to a "pounding in his side," which was not constant).

The lung was now cut into, and in every part thus examined, it was found perfectly solidified from sanguineous effusion, and non-crepitant. The right lung presented the same features as the left, wherever examined.

Editor's Table.

To the Readers of the "Pacific Medical & Surgical Journal."

FOR nearly four years I have been one of the Editors of this Journal, and for the last two years I have had the sole management. I have not been able to bestow upon it the labor and time I desired, for the care of my family demanded that I should devote my time to the practice of my profession. Still, the Journal has maintained an unblemished and constantly increasing reputation—many of its original articles having been translated into several other languages. At the earnest solicitation of a few friends, I concluded to enter the Army, hoping to be of real service in the present melancholy condition of our once glorious country. My pay as full Surgeon does not nearly equal the income I was enjoying from my civil practice; but, if I shall hereafter find, to the satisfaction of my own conscience, that I have served my country, in mitigating the sufferings of her defenders, I shall consider myself remunerated for any pecuniary sacrifice I have made. Dr. McCormick, Surgeon U. S. Army and Medical Director for Department of the Pacific promised me, that if I entered the Army, he would assume the Editorial charge of the Journal, and continue its publication so long as I remained in the Army, unless he should be ordered East. But, a few days after I had accepted my commission, Dr. McCormick *was* ordered home. Whereupon I applied to Dr. James Blake, of Sacramento, a gentleman with an established and high reputation in the learned world, as well as in the medical profession, and being about to remove to San Francisco, he consented to continue its publication as sole Editor.

Dr. Blake does this without expectation of pecuniary reward for his labor, well knowing that a medical journal does well if it pays its own way. The readers of the Journal will gain materially by the change of editors, and its subscribers can afford to pay a *little* more promptly than they have been accustomed to think necessary for the last four years.

In conclusion, I am happy to assure you all, that the *Pacific Medical and Surgical Journal* "still lives," and will not again fail for a single month, unless some accident as unavoidable occurs again as that for which it was suspended last month. *Vale! Vale!*

DAVID WOOSTER.

IN taking charge of the Editorial department of the *Pacific Medical and Surgical Journal,* we do so with the conviction that the duties incumbent on the position are neither light or unimportant; nor should we have accepted the position unless with the hope of being able to fulfil the duties it involved in a manner both satisfactory to our readers and agreeable to ourselves.

Being in the direct receipt from Europe of French, German and English Medical Journals, and possessing a competent knowledge of these languages, we shall at least be able to find our readers cullings from the periodical medical literature of these countries; and as twenty-five years experience in the practice of the profession, and a pretty full acquaintance with its current literature, has we hope done something towards maturing our judgment on medical subjects, we shall not hesitate to express our opinions freely on any novelties that may for the time be fashionable, and which we are bound to notice as medical news. Our endeavor, however, in making selections, shall be to extract only such matter as we think likely to be useful. A practice of eleven years in different parts of the State, has made us, we believe, pretty well acquainted with the wants of the medical profession, generally, and we shall endeavor from time to time to draw up a resume, either in the form of reviews or as editorial notices, of the progress that is being made in different branches of our art; and if in so doing we should appear to some to be dwelling too much on well known methods of practice, we would observe that our object is to make the Journal practically useful, not only to the select few of the large towns, but to the majority of our readers. We have learned from experience that some things cannot be too often repeated, particularly when they are opposed to those earlier impressions that occupy the older and lower strata of our medical knowledge. As for writing for the public, we have no idea of doing anything of the sort, except on those few points where medical science and public institutions come into contact. The crusade against quackery we have waged in years gone by, and we must acknowledge but to little purpose. In fact, with advancing experience, we have come to look on the genus "quack," in the same light as the Egyptians did their Ibis, and the Dutch their Storks. They serve to remove a large quantity of a useless element, which our forcing system of education is producing so largely, that if some special means were not devised for its elimination, we sincerely believe the whole mass of society would become in time deteriorated. We do not allude simply to the fools, they are the staple products of every age; but to those whose mental digestion has been so far weakened by over-cramming in their youth, that they are totally unable to form a sound judgment on the nature of evidence, so as to assimilate the fundamental truths of science—in whom there is mental excitability without strength, imagination without reason, knowledge without judgment, and whose mental and bodily constitution both mark them out as the victims of quackery. Let them fulfil their destiny, and surely no more civilized machinery could be invented for their removal than the sugared globules of the homœopath, or the moistened sheets of hydropathy.

Should our ire ever be kindled, it will be only by that professional quackery, which, by hypocritically assuming the garb of science, seeks to rob the professed quacks of their legitimate prey. We hope such will never come under our notice, as we do not wish either to have our own equanimity disturbed, or to hurt the feelings of others; but still as Editor of a medical journal, we cannot shirk the responsibility it involves of censuring what would tend to degrade the profession to which we belong—(to our weaker brethren; that is, when it is very bad). This is the part we shall try to fulfil towards our readers; but, on the other hand, in order that the Journal should be really what a Medical Journal ought to be, our readers have certain duties to perform towards themselves, towards the profession, and towards the editor. We would remind them, (leaving the five dollars a year out of the question, as we trust every one of our readers feels the necessity of paying up punctually,) that the Journal ought not merely to be a medium for imparting knowledge to them, but that through its pages they should furnish their contributions for the advancement of medical science; few are there, we are sure, amongst our readers, who could not add their mite to the general treasury which is formed by the periodical medical literature of the day. Whoever has carefully noted the history and development of any well-marked form of disease, can by publishing his observations, add to the stock of materials of which our science is being built up; and one of the legitimate objects of a medical journal is to form a repository for such observations. Every fact accurately recorded, particularly when occurring under circumstances such as are afforded by the peculiarities of our climate and our geographical situation, may, and probably will tend, to throw some additional light on general pathology—not that we expect that all our contributors themselves should strike out the spark, but let them be contented with furnishing the materials, even if it is for others to work them up. We do not want brilliant theories of disease, but what we do require, and what our readers ought to furnish to us and to the profession, are facts from which others possibly more favorably placed, may arrive at deductions which shall help on the march of our science. An editor of a journal whose pages are but filled with cullings from other sources, cannot carry on his undertaking with any heart, and unless we can enlist the support of a numerous body of contributors, we certainly should feel inclined to vacate our position.

We would, therefore, call on our readers to assist us in this respect. Those of you who are practicing in the interior valleys, must see disease under a different form from what we see it on the coast, with some marked peculiarities, or at least with some peculiar shade; it it impossible but that the summer malaria, and high temperature, the winter cold and humidity, can surround your patients, without in some way influencing the cases you have to treat; and those of you who live in the mountains—What is the effect of the diminished pressure, the dry, bracing air, on those who are brought under your care? Perhaps you cannot tell, but at least you can by carefully drawn up histories of interesting cases, furnish the facts by which others may be able to arrive at new generalizations.

It has been justly said, that to the true philosopher, "nothing is too small as a means, nothing too great as an end;" every fact carefully observed and recorded, is sure, sooner or later, to find its place in the temple of science. But whilst conferring a benefit on the profession at large, by occasionally reporting their most interesting cases, our readers would at the same time be securing an advantage to themselves by the habit they thus gain of accurately observing the various phases of disease; one case carefully watched and the facts noted, would make more impression, and would be practically more useful, than a dozen cases allowed to pass by with only ordinary attention. We therefore trust that whilst we are determined to do all in our power to make the Journal useful to our readers, they will enable us to render it useful also to the profession at large.

JAMES BLAKE.

HEALTH OF SAN FRANCISCO.—During the month of October, the mortality for the city was 154, being a decrease of 10 upon that of the preceding month. Of these deaths 51 were in children under three years of age. As far as we can ascertain, there were but 4 deaths from epidemic diseases—1 from small-pox, 2 from measles, and 1 from scarlet fever. The health of the troops at Camp Alert continues good, notwithstanding they have been somewhat exposed to the inclemency of the weather. There were but 54 on the sick list, in a force of about 640 men, most of the cases being of a trivial nature. Some cases of typhoid fever have occurred in the camp, but we have not heard of any deaths. The hospital accommodations are all that can be desired.

Notices of Books, &c.

THE PRINCIPLES AND PRACTICE OF OBSTETRICS. By Guning S. Bedford, A. M., M. D., &c., &c. New York: J. S. Wood & Co., 389 Broadway. 1861.

WE have received from the publishers a copy of the above work, but too late to enter into any detailed review of its contents. In a future number we propose to make it a subject for further remarks. A superficial glance over its pages shows us that the work, at least as regards its practical part, must take the highest place amongst our text books on Obstetrics. It evidently embodies the results of the author's long practice in this branch of the profession, expressed in a forcible and intelligent style, so as to impress the vast amount of information it contains on the mind of the reader.

For sale at Messrs. Roman & Co.'s, Montgomery street, San Francisco.

THE PATHOLOGY AND TREATMENT OE VENEREAL DISEASES. By Freeman J. Bumstead, M. D. Blanchard & Lea, Philadelphia. 1861.

NOTWITHSTANDING the attention that has been bestowed by the most distinguished members of the profession on the study of venereal diseases, and the copious literature on the subject which almost encumbers our shelves yet we welcome with much satisfaction the appearance of a new work on the subject, which is neither a translation of Ricord, or a reprint of Hunter, but which contains the results of the investigations on the subject which during the last ten years have been gradually saping the authority of the older authors on many of the most important points in the pathology and treatment of venereal diseases. We know not any department in the whole range of medical literature, in which a new and original work was more needed than on that of venereal disease, and a superficial view of the work convinces us that it is one eminently calculated to diffuse amongst the profession in a practical and intelligible form, the improvements and discoveries that have been recently made in the pathology and treatment of this most important class of diseases. In the next number of the Journal we propose to call attention more fully to the work, as we have not space in the present to do it justice.

For sale in San Francisco, by Roman & Co., Montgomery street.

URÆMIA: THE MORBID EFFECTS OF THE RETENTION IN THE BLOOD OF THE ELEMENTS OF THE URINARY SECRETION. By William Wallace Morland, M. D., &c. Blanchard & Lea, Philadelphia. 1861.

WHEN the title of this work first caught our eye we were tempted to paraphrase it by exclaiming *uræ-mania!* so completely have we become surfeited by the amount of Uræmia literature that has been published during the last few years, and the practical value of which has certainly not repaid the labor of perusing it. One of the advantages of Dr. Morland's work is that it is short, and presents in a small compass all that has been discovered of practical value on the subject. To those who have not access to the larger works of Sherdichum and Parker, we would recommend the compilation of Dr. Morland.

For sale by Roman & Co., Montgomery street, San Francisco.

PHYSICIANS' VISITING LIST FOR 1862. Lindsay & Blakiston, Philadelphia.

THERE useful little annuals have again made their appearance, and to those of our readers who have already used them they require no recommendation. The interleaved edition we have found the most convenient, as it affords space for noting the name of the disease and the age of the patient.

San Francisco—Roman & Co., Bancroft & Co.

THE thirty-sixth Congress of German Naturalists and Physicians was held at Spires on the 17th of September. The Congress adjourned on the 24th.

FIFTY-EIGHT gentlemen were admitted members of the Royal College of Surgeons of England by the Court of Examiners in August last.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late John W. Francis.

SUMMARY OF MEDICAL SCIENCES;

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from emiinent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the Summary of Medical Sciences will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "The Epitome" —and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. Wells, M. D.—Dear Sir: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage and can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE
Pacific Medical and Surgical Journal.

Selections.

Notes upon Tracheotomy, with Cases.

BY A. M. EDWARDS, ESQ., F.R.C.S.E.

WHILE it seems so easy for a teacher of surgery to lay down rules for the operations which are performed to avert impending suffocation, and while they seem so easy on the dead body, few surgical performances require more tact, or have been the subject of such varied opinions and such voluminous writing. The very question of where the opening in the windpipe should be made, is answered very differently by many surgeons.

To take some illustrations of this: Mr. Erichsen, in p. 763 of his *Science and Art of Surgery*, says, "On comparing tracheotomy, as ordinarily performed, with laryngotomy, I think there can be little doubt that the surgeon should give the preference, in all cases where it is practicable, to the latter operation;" and then proceeds to define these—"All those cases in which obstruction to respiration is dependent upon inflammatory effusions into the submucous cellular tissue, whether it be dependent upon idiopathic or erysipelatous laryngitis, or upon the irritation and inflammation excited by swallowing boiling water or the stronger acids, the swelling for reasons, &c., &c., never extends below the true vocal cords." Then Mr. Skey, in his *Operative Surgery*, p. 551, says, to tracheotomy below the thyroidean isthmus there are abundant objections; and he figures the dissected middle of a neck with a single large thyroid vein falling down straight as a plumb-line. "The exposure of the surface of the trachea *above* the thyroid isthmus has not these objections. *This* is the point that should be selected for the operation of tracheotomy." Professor Syme, on the other hand, says, "The most convenient situation, when accessible, seems to be immediately *below* the isthmus of the thyroid." So Mr. Fergusson also seems to think. Allan Burns, also, in p. 415, *Anatomy of Head and Neck*. There seems, however, to be a gradually increasing partiality for laryngotomy or laryngo-tracheotomy, if we are to judge from the numerous publications on the subject, and the ingenious devices for simplifying the operation. The very nature of the causes for which this operation is performed (laying aside those experimental ones for epilepsy, or for the relief of spasm in aortic aneurism) makes it desirable that the operation should be as speedy as possible. Now, though laryngtomy is so much written about, *is* it a common operation? So far as my experience goes, I should say that it is not often done intentionally, though I have frequently seen the cricoid cartilage cut by operators when performing tracheotomy, as they imagined, under the thyroid isthmus. For my own part, I have always selected the situation recommended by Mr. Syme, and see no reason to change it, because, although undoubtedly tracheotomy, like every operation at the root of the neck, requires care, it seems to me well worth the additional trouble. Your tracheal opening is far from the disease, far from the sensitive mucous membrane of the larynx, and, so far as surgery goes, it is the utmost you can do for the patient; whereas, if you open the tube at its upper part or in the crico-thyroid membrane, he *may* be no better off after the operation than he was before.

Indeed, in many cases it is difficult to determine exactly the condition of the windpipe of a person suffering from symptoms of suffocation. The surgeon is hastily summoned; he gets a few hurried explanatory sentences to guide him; the patient is generally unable to give much information, or even to submit to examination; and, with all respect for the operators who advise us "to feel for the cricord cartilage, and ink a line below it," I would say, that in many the neck is full and swollen, tense and puffy, and not very well adapted for the application of such engineering principles. Then, operating below the isthmus really affords you more room than above. If it be such a serious matter to wound it, it seems in nearly as much danger from above as from below. Let any one walk round the dissecting-rooms when there are eight or a dozen bodies of all sexes or ages on the tables, and see how much trachea is visible above the thyroid isthmus; at the most, he will find in each, generally, merely an indication of the first tracheal ring. In operating, therefore, for tracheotomy, unless I were specially requested by the physician, or saw some good reason for doing otherwise, I would begin my incision over the upper margin of the sternum, regulating the length of the incision as I would for an artery—the deeper the part to be reached, the longer the skin wound; so a fat neck would require a longer cut than a lean one. A practised dissector at once recognises the subcutaneous parts and the bias of the veins; in most cases, they will all be following some definite direction to either right or left, or be in two sets with a space between them. What I believe really is often confusing, is when close to the trachea the muscles on each side become rigid, and the finger feels as if in a hole, but in an instant the trachea again rises and is recognised. In some, the latter is very small; in others, of a large calibre. In one patient on whom I did tracheotomy, it was as small and moveable as a bird's. In this case, for years a gradually increasing tumour of the neck had pressed upon it, and I could only introduce a small child's canula. In another, on whom I operated some months ago—a large, fleshy young woman, suffering from diphtheria—the division of two rings easily admitted a canula which I had frequently used on other occasions, and found to fit tightly after dividing three or more rings. On making the tracheal wound, it is well to insert the scalpel handle, and, turning it half round, allow the patient to breathe a few times and recover himself a little before introducing the tube. The spasm at this part of the operation is sometimes very painful to witness, and the efforts of the patient interfere with the introduction of the canula; but the welcome air gives fresh courage, and he will usually cheerfully submit to the subsequent proceedings.

Should we give Chloroform?—In cases where tracheotomy is performed for dyspnœa, the result of disease, I should be very reluctant to administer chloroform. I was present on one occasion when it was given to a patient of Mr. Fergusson's by the accustomed hands of the late Dr. Snow. The dyspnœa was caused by syphilitic ulceration of the larynx, and was not at the time very urgent, but, after a few inhalations, death appeared imminent; and if Mr. Fergusson had not quickly opened the windpipe, the man would doubtless have died. Certainly the impression of the bystanders, and Mr. Fergusson himself, was, that the chloroform had caused the sudden and alarming symptoms. Professor S. D. Gross, however, says: "The use of anæsthetic agents, however, greatly facilitates the operation, and divests it of much of the dread which surgeons have always so justly entertained regarding it."—p. 528, v. ii.

Chloroform after the Operation.—But immediately after the trachea is opened, and a few inhalations have brought back color to the lips, when, after every few inspirations, there is an exhausting paroxysm of coughing, then chloroform is most beneficial. It need not be given in such quantity as to produce unconsciousness, but calm; and a few drops on a handkerchief, held near the orifice of the tube, are quite sufficient. When a fit of coughing comes on, it may be given, and the patients become at last impatient for it.

Keeping Canula Clear.—One troublesome part of the after-treatment is keeping the tube clear; and, indeed, there seems great reason to believe that our present close-sided canula would admit of much improvement, and that the double tube, the external part of which consists of two slips which may be pressed together like a forceps, would be most easy of introduction, and most efficient. For cleaning single tubes where the fluid secreted was very copious, I have found that a piece of gum-elastic catheter, fitted into the hole of a common penny vulcanized india-rubber ball, answered well as a sucking-pump. Mr. Erichsen mentions a case in which he performed tracheotomy on a young woman, and was obliged to empty the windpipe by sucking out three or four mouthfuls of blood and mucous. He was rewarded by his patient's recovery.

Danger of Sucking the Tube.—There is no doubt that the surgeon's own feelings should be held of no account where his patient's safety is concerned; but it is well to remember that, in doing this anything but pleasant performance, where the operation has been for laryngitis, the sucker runs some risk. It is not very long since a medical man in Paris lost his life from laryngeal discease contracted in this way. Dr. Smith, of Springfields, Massachusetts, was once seriously ill from sucking the trachea of a croupy infant. My assistant, Mr. Shouldham, lately found himself with a badly-inflamed sore throat from sucking a tube I had put into the trachea of a young woman with acute laryngitis; and, about three years ago, after having sucked thirty or forty times the mucous from a canula I had inserted in the windpipe of a little girl with diphtheritic exudation in the mouth and fauces, felt my throat dry, stiff and sore within six hours of doing so, although I had carefully washed my mouth after each application of it to the tube. Within twenty-four hours I was very dangerously ill, with a condition of throat very closely resembling my patient's. I should not, therefore, be inclined to repeat this process on any future occasion; for setting aside its nastiness, the double canula catheter and the india-rubber ball do nearly as well.

When should the Tube be Removed?—As soon as possible; and, if there is proper attendance in inflammatory cases, it may be taken out directly the sputum comes through the rima glottidas, or the exudation softens; but if the patient is at a distance from assistance, or among timid people, great caution is necessary, for a recent tracheal wound contracts very rapidly, and the soft elastic tissues at the sides soon close, while the glottis refuses to take all the work on such a short notice.

I was much impressed with this in a recent case, where I had placed a tube in a man's throat a fortnight before. His medical attendant removed the tube at ten A. M.; and at two P. M., the same day I was sent for, and found him in a paroxysm of suffocation, with the wound contracted, so that

I could not get in the canula which had been taken out only four hours before, and had to content myself with a far smaller one. One great objection to leaving the tube in for a length of time, is the contraction which seems to occur in the glottis when unused. The tubes, which have a hole cut in the upper part, allow some air to pass upwards; and they may be closed for a few hours with a small plug, so as to get the laryngeal orifice of the windpipe gradually accustomed to a renewal of its duties.

If worn for some time, the edges of the cut rings of the trachea bevel off on their inside, and the sides of the wound grow callous. In this condition the tube may be removed at the will of the patient; but it should be covered by some contrivance, to prevent the entrance of dust. One patient of mine may be seen walking the streets of Edinburgh with a most reverend appearance, derived from muslin appendages, like clergyman's bands, which he wears for this purpose.

It is said that the tracheal cartilage is not reproduced; but the following case seems to indicate that it is, at least in the very young. Some years ago I performed tracheotomy on an infant, assisted by Dr. Land, now of Spanish Town, Jamaica. The windpipe was so small that at first I could only get in a piece of a No. 10 gum-elastic canula; and in my efforts to introduce a larger instrument, I broke one ring, so that it hung loose on one side; in short, the tracheal wound was a very untidy one. I removed the tube next day, and closed the wound; but owing to the child twisting his head, the air got into the cellular tissue, and his neck, chest, and shoulders became emphysematous. I reintroduced the tube, and repeatedly put a probe into the trachea, and picked out pieces of false membrane. He recovered; and more than a year afterwards I heard he was ill of some infantile malady. I went to his home, and found him dead. The cicatrix was still very distinct in the skin, and I cut it out along with the trachea. In the latter there was no mark; the rings were perfect, and a white line on the mucous membrane was the only indication of a former lesion.

Is tracheotomy, or rather, is an artificial opening in the windpipe dangerous, and does it add much to the danger of a disease? It does not appear to be dangerous when done for the removal of foreign bodies, if done in time, and no exploratory dives with instruments made into the trachea or bronchi. True, suicidal wounds of the windpipe frequently terminate fatally, but they are exceptional in every way. In the case of croup, Dr. Meigs says, "It has also been shown, I think, that the operation is in itself alone but little dangerous to life." But the operation in the matter of croup is somewhat unjustly used, it seems to me, by writers on the subject, and those who collect statistics from many different countries, charities and practitioners. How many times has every practical surgeon been called on to operate on patients already dying, who have had their blood more and more poisoned every hour for days, until the approach of death is evident to every one, and the operation is then decided on, as if a little oxygen could then work such marvels as to undo all the accumulated mischief in a few minutes; while the surgeon is unwilling to give the poor child its *coup de grace*, and still more reluctant to deprive it of what, after all, *may* be a chance for life?

Again, all that tracheotomy pretends to effect, is to gain time, to give the physician's remedies time. This observation may appear self-evident; but in practice we constantly see that, as tracheotomy is deferred until the last moment, so it is looked upon as the last *remedy*.* Again, if tracheotomy is not always followed by recovery, it is generally followed by increased comfort; so there seems to me every argument for its performance, not only when the disease is purely laryngeal, but when the obstruction to breathing is principally, though perhaps not wholly, above where can open the trachea. The after-treatment, of course, must depend on the disease which produced the dyspnœa; but there are a few cases which will not require stimulants, and the most nutrient food which can be taken. Sometimes the fluids, when administered by the mouth, trickle down the windpipe and come out at the tube. This may come on immediately after the operation, or not till the third or fourth day. "It rarely lasts in children," says M. Trousseau, "beyond the tenth or twelfth day." This great authority recommends that all fluid food should be interdicted. When infants are much exhausted after any operation, I have remarked that fluid is apt to go the wrong way; but in both young and old, where there is this condition, it seems to me better to trust principally to enemata of beef tea, and brandy or wine.

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* My own opinion is, that it should never be performed except as a dernier resort when every other remedy has failed, and death seemed inevitable.—[American Medico-Chirurgical Review.

The following are some of the cases in which I have operated under such circumstances as those I have alluded to:

1. Boy, æt. 2. Croup. Trachea opened close to sternum; veins easily avoided; tube removed in forty-eight hours. Recovered.

2. J. S., æt. 5, girl. Diphtheritic membrane in mouth, and a mucous rale in thorax. Trachea opened near the sternum; no bleeding. At first relieved by the operation; died ten hours after.

3. J. M., æt. 3. False membrane coughed up, and much rale in chest. The child was much exhausted, but I opened the trachea. No bleeding. Died in twelve hours. Much relief at first from operation.

4. Boy, æt. 2. Trachea opened for croup, principally laryngeal; but I just reached the house in time to open his windpipe and see him die.

In cases 2, 3, the patients were so exhausted that they were dying when the operation was done; but the relief it brought them even in their reduced condition quite warranted the operation, and the only regret was not performing it sooner.

5. *Tracheotomy for Erysipelas.*

Man, æt. 30. Erysipelatous sore throat, with dry, husky cough. Dyspnœa came on suddenly. Trachea opened very low down; tube removed in twenty-one hours. The erysipelas spread from the wound round his neck, but he rapidly recovered.

6. *For Small-pox Pustules in Larynx.*

Man, æt. 38. Patient of Dr. T. Keith's. Had been ill of small-pox for two months, during which time he had undergone a severe attack of pneumonia. Subsequently pus appeared in the anterior chamber of the left eye. Dr. Keith incised the cornea and evacuated the pus; the wound healed, and the vision was restored. Symptoms of laryngitis now set in, with occasional violent attacks of dyspnœa, which became so frequent that I was desired by Dr. Keith to open the trachea, which I did below the thyroid isthmus. The patient at once indicated that he was relieved; but occasional violent paroxysms of coughing suggested the use of chloroform, which was given him at intervals.

For several days, small round substances, like the scabs of pustules, were coughed through the tube, and he hawked up many from the back of his pharynx.

Two weeks after the operation, Dr. Keith tried whether he could do without the tube; but the larynx was so irritable, that, after a few inspirations, spasm ensued, and it had to be reintroduced.

He has quite recovered his health, but still wears a tube. If the latter is obstructed or removed, he can force air through his glottis in expiration, but cannot inspire without great effort and a peculiar crowing sound, and this experiment is followed by a most distressing paroxysm of dyspnœa.

I lately saw, at one of the valuable Saturday lectures given by Dr. Haldane, at the Royal Infirmary, the larynx of a patient who had died of small-pox. There was distinct false membrane visible upon it. Dr. Alexander Simpson informs me that he has seen round patches, supposed to be small-pox postules, in the windpipe, demonstrated by Professor Virchow to be exudations of lymph.

It is possible the patient whose case I have briefly recorded had both; indeed, he ran the gauntlet of nearly every symptom he could well have; but as each appeared, Dr. T. Keith, with admirable judgment, met and overcame it.

7. *For Diphtheria.*

Woman, æt. 21. Sore throat a week, coughing up occasionally large, tough portions of false membrane for twenty-four hours. Face congested, lips livid, surface cold. Tracheotomy low down. Died in three hours.

Although the operation was performed in this case, there was but little indication for it further than the presence of diphtheria in the throat; for she seemed dying as if poisoned by the disease as much as from asphyxia. She seemed to derive little or no relief from the operation.

8. *For Laryngitis.*

I was called by Dr. Brown, of Dublin street, to see M. J., æt. 21, whom he thought would require tracheotomy. This patient had been subject to attacks of laryngitis from infancy, and upon this occasion she had complained of sore throat for several days. Dr. Brown applied six leeches to the neck; and, shortly after I saw her, she had croupy breathing, and a quick, full pulse. The mucous membrane of the fauces was red and dry, and elevated in parts. The symptoms not being at that time sufficiently urgent to warrant an operation, we left her, and I heard afterwards that they had subsided; but at one o'clock next day, as I was about to cut down a piece of dead bone in a girl's arm in my own house, a messenger came to tell me "the girl was dead, but I might come if I liked." Having the necessary instrument in my hand, I ran off, full of remorse at declining to operate in the morning. The girl had apparently fainted; she was pale, pulseless, and apparently not breathing. Dr. Brown being fortunately in the house, we quickly placed her in a convenient position, and I opened her windpipe. Directly the air was admitted, she became very unruly, and threw himself about. There was a good deal of venous bleeding during her struggles, but it stopped whenever the tube was in. She then burst into tears, and insisted on shaking hands all round. We found it necessary, for the first forty-eight hours, to give this very demonstrative young person considerable quantities of chloroform, which my friends, Messrs. Shuldham and Barry, kindly sat up all night to administer.

Dr. Brown continued to treat the laryngitis as if tracheotomy had not been performed, with chlorate of potass, solutions of nitrate of silver, etc., and saline diaphoretics and nutrient enemas; and when the upper orifice of the windpipe was, in his opinion, sufficiently restored to health to be trusted, the tube was removed (on the fourteenth day), and the wound rapidly healed.

The upper edge of the wound in this case was two inches and two lines from the upper edge of the thyroid cartilage, and an English line in depth after all swelling had subsided. When doing the operation, I felt pulsation on each side of my forefinger, and made the wound in the trachea higher than I generally do, lest I should injure anything at the root of the neck; and that, I am led to believe, was the reason of the venous hemorrhage occurring, as it was a condition which I had never before been annoyed by.—*Edinburgh Medical Journal.*

On the Treatment of Acute Dysentery by Ipecacuanha.

BY R. W. CUNNINGHAM, M. D., L. R. C. S. ED., ASSISTANT-SURGEON, H. M. 4TH BENGAL EUROPEANS.

LUCKNOW, Nov. 1, 1860.

DURING the three months of August, September, and October last, or the end of the rainy season and the period of drying up of the rains, I have had to treat a good many cases of acute dysentery; and, having employed the plan advocated by Surgeon Docker, of H. M. 7th Royal Fusiliers, I would now offer my humble testimony in its favor. Though ipecacuanha has long been known and used as one of the best remedies for dysentery, it is only lately that it has been used so heroically, and with such astounding results. Mr. Twining gave it, in combination with blue pill and extract of gentian, as a diaphoretic and adjuvant to the mercurial, which was looked upon as the principal agent in the treatment. Others have given it in frequent nauseating doses, and with good effect. But the major plan, as recommended by Surgeon Docker, of giving as much as drachm i.—drachm iss. in one dose, is here rapidly superseding all other plans; its action being, in the words of Mr. Docker, "certain, speedy and complete."

On admission, a sinapism is applied to the epigastrium, and min. xxx. of tincture of opium are given, for the purpose of rendering the stomach more tolerant of the remedy. An hour afterwards, drachm i.—drachm iss of ipecacuan is given. Mr. Docker recommends it to be given half an hour after the Tr. Opii; but, by waiting for a whole hour, the medicine is retained longer, and produces a more powerful effect. As may be supposed, considerable nausea is the result; but vomiting does not generally come on until at least an hour afterwards, sometimes two hours. During this nausea, copious perspiration is produced over the whole body; the pulse becomes more full and soft, and less frequent; the countenance loses the expression indicative of suffering, so marked in acute dysentery,; tenesmus and abdominal pains immediately cease, and the patient has no more stools for twelve and sometimes for twenty-four hours. As soon as the nausea passes off, he expresses himself immeasurably relieved. The perspiration is kept up for a considerable time, and, of course, he feels languid and depressed for a little; but this has not, in any case that I have seen, proceeded so far as to call for any interference. When the patient next goes to stool, he does so without pain or tenesmus: the evacuations are fluid, and hold in suspension small masses of fæces, but are entirely free from blood or mucus. Sometimes the first dose is not sufficient, the dysenteric stools returning after a short interval; in which case a repetition of the dose will be required. Chicken broth and arrowroot is the only diet allowed. In most of the cases that I met with, nothing further has been required, after the action of the ipecacunha, than to keep the patient upon the above-mentioned diet for a few days, until the bowels recover their tone; or, if any tendency to debility manifested itself, a few doses of infusion of chiretta with nitro-muriatic acid have been sufficient to complete the cure.

The *rationale* of the action of ipecacuanha thus administered appears to me to be, that it produces the same relaxing effect upon the mucous membrane of the bowel that it does upon the system in general; a copious flow of the secretions of that membrane is produced, and an effect similar to that which we produce when we scarify an erysipelatous surface is the result—the membrane is relieved from the tension caused by the congestion and effusion of lympth, thereby preventing destruction of tissue and ulceration. The excreted fluids lubricate any scybalæ that may be retained in the saccules of the colon; and the general nausea overcomes the spasmodic action of the muscular coat, thereby enabling the scybalæ to be set free. But the action of ipecacuan does not end here; enough is retained to produce a cathartic effect; or it may be that the whole mucous surface of the bowels has been induced to pour forth an increased secretion during the nausea; at all events, the stools become copious, fluid, and fœculent. This catharsis continues for several days, thereby relieving any abdominal congestion that may be exist, by causing a drain of the whole portal system; and it possesses this advantage over that produced by most purgatives, that it is mild, free from irritation, and neither constipates nor debilitates the bowel after it has ceased.

Of the cases treated by me, or which I have had an opportunity of seeing, not one has had a relapse after leaving hospital; and, on looking to the old Registers, I find that cases similar to those I have seen were, under other systems of treatment, much longer in hospitals, and also very liable to relapse. Army surgeons have this advantage, that all acute cases of illness must come under their observation in the very commencement; so that, in most cases of acute dysentery, the patient is under treatment while the disease is yet in its first stage, and no actual destruction of tissue has taken place. The means, therefore, is invaluable by which we can arrest this frightful disease in its infancy, before it has advanced to the stage of ulceration, rendering necessary a long and tedious course of treatment, and too often giving rise to serious complications in other organs than the one originally affected in acute dysentery. By overcoming the disease at the onset, we at once relieve the general abdominal plethora with which it is associated; and thus, though the small intestine, mesenteric glands, liver, and spleen be at the same time in a state of active congestion, the action of ipecacuanha as above described, is not only efficient in removing the actual inflammation of the organ primarily affected, but is even more so in overcoming the congestion of other organs, so intimately related as these are with the principal seat of the disease.

Though my experience of this disease has been very limited, I think we may fairly assume, on these grounds, that the occurrence of hepatic and other complications will be far less frequent, and chronic dysentery much more rare, than under other systems of treatment which require a longer continuance of the remedies, and thus allow active congestion of important organs to ripen into actual inflammation.

I append the following case as illustrative of the previous remarks. It was acute and uncomplicated. The patient was six days in hospital; but, after two days, may be said to have been convalescent, as the only treatment consisted in a regulated diet, no medicine whatever having been given.

Pte. J. L——, aged 28, a stout, healthy-looking man, was admitted on the 20th October, suffering from acute dysentery. Had been to stool twice at hospital within a few minutes, and says that during the whole night he has been to stool every half-hour. He has much tenesmus, intense heat and pain in the rectum, deep-seated pain and burning sensation in the left iliac region; skin hot and dry; pulse small and frequent, about 100; tongue slightly coated. The stools contain no fœculent matter, but consist entirely of mucous, with bright fluid blood.

Rl. Tr. Opii m. xxx. stat. sumend.

Ri. Emplast. Sinapi Epigastrio applicand. et post horam.

Ri. Pulv. Rad. Ipecacuanhæ, drachm iss.

Diet—Chicken broth, with oz. i. of arrowroot added to one pint.

Vesp.—The medicine was retained for a very short time. There is a little improvement in the stools, but they are still frequent, and attended by much tenesmus.

Repeat—Medicamenta supra scripta.

21st.—Has had no stool since he took the ipecacuan last night. Retained the dose for two hours. All abdominal pain and tenesmus have entirely passed off. Deep pressure in he left iliac region does not now give pain. Skin cool and moist; pulse more full and soft, 90.

Vesp.—Has had no stool; says he is quite well.

22d.—Has had a small stool this morning, fluid and fœculent, without any dysenteric appearances, and without pain or tenesmus.

Vesp.—Has had a large fœculent stool, fluid.

23d.—One stool this morning; becoming more solid. Continues quite well, and complains of not having enough to eat.

24th.—Continues well; has had no stool since yesterday. To have mutton chop oz. viii, in addition to the former diet.

Discharged on the 26th October, quite well; and now continues so on 1st November.

This case affords a good example of the success of the ipecacuanha major plan of treatment. The failure of the first dose I attribute to it not having been retained sufficiently long, the nausea and other effects were consequently very transient, and insufficient to produce the desired result.—*Edinburgh Medical Journal.*

ON SUB-PUBIC OR OVALAR DISLOCATIONS OF THE FEMUR.—In this paper, M. Sedillot calls attention to the fact that in the most frequent form of dislocation of the femur, the sub-pubic, the ischio-pubic, or the ovalar, there may remain the power of standing and of walking with a certain amount of lameness, notwithstanding that no reduction has taken place. He gives instances of which soldiers have even been able to perform their marches. This persistence of the functions of the limb is explained by the relation subsisting between the head of the bone and the foraman ovale, this last by its depth and its borders presenting points of support favorable to the movements of the displaced bone. In spite, however, of this retention of power of motion, the symptoms of displacement will not be less obvious to the attentive observer. 1. The limb is elongated by from one to three centimetres, and seems to be still more so, owing to the depression of the pelvis on that side. 2. The great trochanter is carried inwards, backwards and downwards, its region being at the same time depressed and flattened. 3. The entire limb is manifestly carried outwards, the foot being in a state of abduction. 4. The rotation of the foot inwards is usually impossible. 5. Flexion of the thigh on the pelvis is tolerably easy as long as the limb is in a state of abduction, but ceases to be possible if the thigh is placed in a state of adduction. 6. There is no obstacle to extension, 7. Ovalar luxations are the most frequent and least serious of the varieties of dislocation of the femur. 8. They are most commonly met with in the young, and in persons whose joints are naturally very lax. 9. Reduction is effected without much difficulty, even at the end of several weeks, by making traction from within outwards at the upper end of the thigh, while the knee is directed inwards and forwards, and placed in abduction when the head of the femur is supposed to have reached the brim of the acetabulum. 10. The only precaution necessary for the prevention of relapse, is to maintain the limb elongated and in a state of gentle abduction. 11. The recovery is rapid and complete. 12. In case of reduction not having been effected, the patients still are frequently able to employ the limb, but suffer from a certain amount of lameness.—*Medico-Chir. Review, from Gazette des Hopitaux.*

On the Pathology of Asthma.

BY G. H. KIDD, M. D.

IN this article the author enters into the consideration of the physiology of the action of the bronchial muscles, and comes to the following conclusions:

1st. That during the paroxysm of asthma, the chest is distended to the greatest possible extent.

2d. That all the muscles of inspiration are in spasmodic action—(tonic spasms).

3d. That the bronchial muscles are muscles of inspiration, and associated in the spasmodic action with the other muscles of inspiration.

4th. That breathing is carried on by the voluntary effort to aid the muscles of expiration, and that as soon as this is relaxed, the muscles of inspiration, like so many stretched bands of India-rubber, distend the chest again.

That the spasm of the bronchial muscles in asthma arises from some morbid action in the medulla oblongata, is to be inferred from the following facts:—

1st. The fact that the spasm affects an entire group of muscles. Now, Schroeder Van der Kolk has shown that muscles associated in action are supplied by nerves arising from special groups of mutually associated and connected ganglion corpuscles. Disorder of this group would then manifest itself in the entire class of muscles.

2d. Van der Kolk has also shown that the skin, covering parts moved by muscles, is supplied with sensitive nerves arising from the same segments of the spinal centre as the motor nerves of those muscles arise from. Dr. Salter has remarked, as an almost universal premonitory symptom of asthma, that there is an itching of the skin under the chin, over the sternum, and between the scapulæ. This, it is evident, is a subjective sensation, and indicates an irritation existing at the roots of the nerves.

3d. Paroxysms of asthma are observed to occur in cases of acute hydrocephalus, as in a case mentioned by Dr. Salter, and in one mentioned by Dr. Graves, where there were also general convulsions. In persons liable to epilepsy, recurring at regular intervals, fits of asthma occasionally take the place of or serve as substitutes for the epileptic fit.

4th. The state of the patient precluding the fit of asthma indicates an affection of the nervous centres. In one there is mental exhilaration, in another mental depression. A patient of Sir J. Forbes's is awakened by convulsions in one foot and leg, and as soon as the asthmatic fit is developed, the convulsions of the extremity cease.

5th. The exciting cause indicates the same. In one, cold water applied to the instep will cause an attack; in another, going to bed with a loaded rectum, sudden emotion, &c., &c. The latter will also check the paroxysm when fully developed. Hence it may be inferred that asthma depends on a morbid state of the medulla oblongata and spinal centres, which manifests itself by throwing the entire group of inspiratory muscles into spasmodic action.—*Medico-Chir. Review.*

WE notice the demise of Professor Anders A. Retzius, of Sweden, Foreign Corresponding Member of the Medico-Chirurgical Society of Edinburgh.

ON SYPHILITIC DISEASES OF THE LARYNX.—After devoting some space to the history and literature of these affections, C. Gerhardt and F. Roth of Wurzburg, notice the laryngoscopic labors of Czermak, Storck and Turck, briefly alluding to the work by Ruhle on diseases of the larynx. No less than eighteen cases are detailed, illustrating every form of manifestation of syphilis found by means of the laryngoscope in connexion with the larynx and surrounding textures, including catarrh, condylomata, various kinds of ulcers, scars, cicatrices, affections of the pericondrium, &c., and the numerous general and local symptoms associated therewith. As a summary, it is stated that of 56 people affected by syphilis, 18 were affected by disease of the larynx. Out of 19 men, 5, and out of 37 women, 13 had the larynx diseased. One case was observed in which a child eighteen months old, the subject of hereditary syphilis, had the larynx affected, condylomata following hoarseness, dyspnœa, and pain on pressure of the larynx. Of the 18 cases detailed, one-half occurred in patients in the third decennium of life; 6 in the fourth; 2 in the second, and 4 in the fifth decennium. Out of 44 patients with secondary (Ricord) syphilis, there were 11 with laryngeal affections, and out of 12 with tertiary symptoms, there were 7; so that it would appear that proportionately to the continuance of syphilic symptoms is the liability to the disease of the larynx. Messrs. Gerhardt and Roth lay great stress on the fact that even for many years after primary syphilitic symptoms, the patient is not to consider himself free from the chance of having laryngeal affections; and on the fact that many will have such affections who are unaware that any such primary affection ever existed, but in whom cure is obtained by the use of mercury. The original manifestations of syphilis are often slight or are often overlooked, and cold or other irritation of the larynx, which, as it were, brings forth the laryngeal symptoms, is often considered by the patient to be the only cause of them. The communication concludes with a section on the prognosis of syphilitic laryngeal affections, according to their character.—*Virchow's Archiv. from Medico-Chir. Review.*

ON THE USE OF DIGITALIS IN LARGE DOSES IN THE TREATMENT OF MENORRHAGIA.—A woman who had suffered from menorrhagia for six weeks, entered the Hotel Dieu, as a patient. She was immediately ordered to take ergot of rye, but without any beneficial effect. M. Trousseau then recommended a very strong infusion of digitalis—(eight grammes of the leaves to two hundred grammes of water). This medicine, according to M. Trousseau, ought to be administered in a certain manner: the strong infusion should be given in the dose of a tablespoonful every half-hour. When digitalis is taken in a large dose, warning is given of the danger which it may produce, by a series of symptoms arising from the irritating action of the digitalis on the gastro-intestinal mucous membrane—namely, vomiting, diarrhœa, and pains in the stomach and bowels. As soon as the medicine is absorbed, a second series of poisonous symptoms is observed, as vertigo, disturbance of vision, pain in the head, delirium, stupor, &c. It is necessary to discontinue the medicine as soon as the first set of symptoms is induced. In the case of the patient above alluded to, the digitalis was given for five hours. As soon as the first symptoms of vomiting were observed, the hæmorrhage from the uterus was arrested, and did not return. Although the digitalis in this case did not produce any very serious symptoms of poisoning, yet the pupil remained for a long time enormously dilated.—*Gazette des Hopitaux.*

Translations by the Editor.

OPHTHALMIC NOTICES.

WE propose to give occasional extracts from Von Graefe's Archiv. fur Ophthalmologie, and from the Reports of the London Ophthalmic Hospital of the more practical and useful novelties now being so rapidly introduced into Ophthalmic practice, avoiding as much as possible the ophthalmic jargon in which, after the manner of the alchemists of the middle ages, the learned Professors of the science seem to delight in shrouding their discoveries from all but adepts.

(From Archiv. fur Ophthalmogie.)

On the Diminution of the Pressure of the Lids on the Ball of the Eye, Particularly as regards the Division of the External Commissure for obtaining this Object. By Professor Von Graefe.

In bad cases of conjunctivitis, whether of a blennorhagic or a diphtheric form of inflammation, or from the formation of granulations, it is of importance to diminish as much as possible the injurious pressure which the lids exercise on the eye-ball. It is evident that this pressure, which is not owing simply to the elasticity of the lids, but also to their muscular character, not only increases the inflammation, but affords an obstacle to the application of those topical means which might otherwise be used to prevent the swelling and erosion of the conjunctiva. How often, for instance, in the rapidly increasing swelling of the conjunctiva which accompanies the outbreak of granular conjunctivitis, are we prevented from using the proper topical applications, because the irritation that follows their use too much increases the inflammation of the eyeball, which has not had time to accommodate itself to the pressure which the rapidly swelling lids and conjunctiva exert on it. More particularly is this evil felt in cases accompanied by infiltration and ulceration of the cornea. The action of an escharatic on the lids always gives rise to a mechanical irritation of the cornea, proportional to the pressure they exert on the eyeball. Under such circumstances, we are often obliged to wait before we can apply the more useful topical medicines until the eye has accommodated itself to the increased pressure. Even in some of the milder forms of conjunctival disease, the principal cause of the mischief is pressure of the lids. With contracted lids, even a slight swelling of the conjunctiva will often cause so much pain, that one is in doubt if the suffering can be due to apparently so slight a pathological condition; whilst, when the lids are relaxed and flaccid, an enormous amount of conjunctival swelling can be borne, with but little suffering. Under this last condition of the lids, strong escharatics, when indicated, can be used with impunity, whilst in the former case, all strong topical applications are badly borne.

These views, which are generally admitted, have led to the adoption of various means for diminishing the pressure of the lids. Against the too common practice of removing large portions of infiltrated conjunctiva, I have often spoken. In most cases is such an operation useless, and it is sure to be followed by the disadvantage of leaving wounds on the conjunctiva which often prolong the convalescence from the original disease, and which, when healed, are apt like all cicatrices on the conjunctiva, to lead to a vascular and irritable state of the eye, frequently interfering with its continued use. On account of these evils, I have endeavored to limit the practice of excision, without however denying the occasional usefulness of an operation, the direct advantages of which are often evident. Another method of diminishing the pressure of the lids which is useful, more particularly in chronic cases, is the excision of a portion of the skin of the lids, so as to make an oval wound with the long axis parallel to the edge of the lid, in the same way in which we should operate for entropium, the wound being left to heal by granulation. In chronic cases of granular lids, where the lid was pressing strongly on the ball, and in which the most careful application of astringents was not supported, I have often had recourse to this operation with manifest advantage. I lately treated a patient by this means who was suffering from an obstinate trachoma, with considerable thickening of the conjunctiva and pannus of the cornea, accompanied by constantly recurring ulceration. The irritable state of the eye did not yield to the application of the ordinary astringents,* or if any amelioration took place, it was not lasting. Although there was no perceptible tendency to entropium, yet the lids were very stiff, and exercised considerable pressure on the too prominent globe. The operation was had recourse to after the patient had been treated by myself and others for a year, without any benefit. After a few days, the condition of the cornea was decidedly improved, and in fourteen days the pannus had almost disappeared. In this case, the diminishing the pressure of the lids did more than the long continued and careful use of topical applications, and after the operation, the granulations were removed by these applications, although previously they could not be borne. A considerable portion of the skin of the lid may be removed, without danger of causing an ectropium.† The operation is only suitable for the upper lid, as the pressure of the lower lid is much less dangerous. In cases like these, we have convincing proof of the manner in which the pressure of the granulated lid keeps up the vascular and irritable state of the cornea. A third method of relieving the pressure of the lids on the ball, consist in the performance of the following operation. It is particularly suitable in those cases of acute granulation (granular conjunctivitis) in which there is great swelling of the conjunctiva, so as to threaten the destruction of the eye, or when from rapid ulceration of the cornea, it is of importance that immediate relief should be obtained. The operation is thus performed: The lids being drawn apart and stretched outwards, an incision should be made at the outer commissure, in continuation with the opening of the lids. The incision must include not merely the skin, but likewise the cellular tissue, and the superficial fibres of the orbicularis; the incision should be from four to six lines long, and should extend almost to the conjunctiva, but this must not be wounded. One or two small palpebral arteries are generally wounded in the operation, the flow of blood from which can be favored by holding the edges of the wound apart, and when enough has been lost, the wound may be allowed to close, and its sides being pressed together by the orbicularis, the bleeding ceases. If the wound is left to itself, it heals in a few days, leaving a linear cicatrix which is hardly visible. I, however, consider it advisable in severe cases to draw the edges of the wound apart occasionally, so as to keep it from uniting for some time. The slight suppuration which follows is of no account, as the cicatrix is hidden in the natural folds of the lids; and by keeping open the wound, the ball is relieved from pressure for a longer period. Even the reflex contraction of the lids, caused by the irritation of the inflammation is relieved. It must be understood that I only employ this operation where there is a dangerous degree of inflammation. Sometimes I have had recourse to it in cases of acute ulceration of the cornea, with or without iritis, more however as a ready means for the abstraction of blood, than for relieving the eye from pressure. In children, the bleeding from the palpebral arteries is sometimes very considerable.

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* I have made many trials of tannin as an astringent in such cases, and find that it is a very mild, but at the same time a very ineffective means for removing granulations. In very irritable eyes it can be used preparatory to the application of metallic astringents, but it is not at all calculated to replace them.

† The size of the portion of skin removed should be six lines broad on the lid when well drawn down, the lower edge of the wound running parallel with the edge of the lid, and at about two and a half lines distant from it. The upper edge of the wound should be concave, so that the broadest part should be in the middle of the lid, and it should extend the whole part of the lid.

REPRODUCTION OF BONE.

(From Institut, No. 1441.)

THE subject of the reproduction of bone by the periosteum is still exciting considerable attention in the old world, although it has ceased here to be a novelty. At a meeting of the Academie des Sciences at Paris, on the 12th August, M. Sedillot communicated some recent observations on the reproduction of bones by the periosteum. His object was to show that there are many cases in which we must not look for complete success, and therefore it is useless for the surgeon to attempt in these cases to reproduce the bone by preserving the periosteum. M. Flourens observed in connection with this subject, that many amongst the cases brought forward by M. Sedillot proved how strong is the reproductive power of the periosteum, as in one of them, which M. Sedillot considered as a failure, about two-thirds of a femur which had been removed, was reproduced.

DIFFERENCE IN THE POWER OF HEARING BETWEEN THE RIGHT AND LEFT EAR.

(From Poggendorf's Annalen.)

PROFESSOR FECHNER has made a series of experiments on this subject, and has arrived at some rather unexpected conclusions, which are worthy of attention, now that the double stethescope seems to be likely to supersede the old-fashioned single tube. He found that in 103 persons examined, 65 heard better with the left ear than the right, 26 heard the same with each ear, and only 12 better with the right ear than with the left. The experiments seem to have been conducted with care, and none of the persons were before being examined at all aware that there was any difference in the power of the two ears. These experiments are also of interest as showing that a slight difference in the sensibility of the two ears should not be considered as pathological.

THE EPIDEMIC OF ERYSIPELAS AT PARIS.—Both in hospital and civil practice, erysipelas has prevailed in Paris to a vast extent during the last few months, so as to prevent the performance of any but indispensable operations. Of a slight description at first, the epidemic has gradually assumed a graver character, until now it is attended with the most fatal results. Several practitioners and students either in the town or hospitals have fallen victims to it, the best hospitals, such as Lariboisiere, having furnished some of the worst cases. It is probable that an epidemic of this disease of similar extent and intensity has not been witnessed in Paris, nor does it at present exhibit signs of declining. The numerous topical applications which prove of use in ordinary epidemics are now of no avail, nor have any general measures as yet have proved more efficacious.—*Medical Times & Gazette.*

[During the last two months, erysipelas has prevailed to some extent in this country, at least in San Francisco and Sacramento. Many cases in this city have followed operations, and in Sacramento there was one case which proved rapidly fatal, following a slight wound on the finger; and another case, in our own practice, in which the application of a sinapism to the throat was apparently the exciting cause.—ED.]

ON THE TREATMENT OF PROLAPSUS ANI BY SUBCUTANEOUS INJECTIONS OF SULPHATE OF STRYCHNIA.—M. Dolbeau met with two cases in children, where the prolapsus of the rectum was cured by the subcutaneous injection of sulphate of strychnia. The first case was that of a little girl, aged three years and a half, who had suffered from prolapsus for two years. M. Dolbeau injected with a syringe ten drops of a solution of sulphate of strychnia, (thirty centigrammes of the sulphate to thirty grammes of water,) a short distance outside the anal orifice. This operation did not cause much pain, and the child immediately afterwards was as lively as usual. The prolapsus returned, however, and another injection was practised, after which there was no return of the malady. The other case was that of a boy five years old, who had prolapsus, for which cold baths, cold injections and astringents, and, lastly, astringents had been prescribed without success. It was therefore determined to try the injection of sulphate of strychnia. A small puncture was made quite close to the anus, and a canula was inserted a little way into the puncture; eleven drops of the solution were injected, and the puncture was compressed for a few seconds to prevent the escape of the liquid. The child did not suffer any pain, and there was no return of the prolapsus.—*Medico-Chir. Review.*

Communications.

Idiopathic Tetanus in an Infant.

BY JAMES BLAKE, M.D.

THE following interesting case occurred in this city. I only saw it in consultation about sixteen hours before its death, but the attending physician kindly furnished me with an abstract of its history.

The child was a female, aged five months, generally healthy; brought up by hand on cow's milk, and had been well nursed and cared for. About ten days before I saw it, the child appeared to be taken with severe neuralgic colic, coming on at intervals, and causing great pain. During the attacks, the abdominal muscles were extremely hard and tense, but there was no contraction of the muscles of the jaw and neck, the child sucking the finger and swallowing, even when in the spasm. There was a great expression of pain during the spasm, and perfect consciousness; the spasm lasted sometimes only a few minutes, and again for two and three hours. As soon as the spasm passed off, the child was apparently well, taking nourishment, and being even ready to play almost as the spasm relaxed. At first the bowels were constipated, but were readily moved by mild aperients. Digestion seemed to be well performed, the evacuations being natural. During the whole course of the disease, there was no symptom of fever. After the disease had gone on about four days, there was an almost perfect remission of the symptoms for forty-eight hours. but after this it again came on with increased violence. About four days before death, the flexors of the wrist became the seat of permanent spasm, and subsequently the flexors of the leg; this was much more marked on the right side than on the left. After the relapse, nothing seemed to check the progress of the disease, and the child died in less than twenty-four hours after I saw it, the violence and frequency of the spasms increasing towards the last, and producing, a few hours before death, some cerebral congestion. The cause of death, however, seemed to be from exhaustion from pain, and want of sleep. During the whole of the disease there was no opisthotonos, the tetanic spasm being confined at first to the abdominal muscles, and subsequently involving the flexors of the limbs, which during the spasm were drawn up and rigid. No treatment seemed to have any marked effect on the progress of the disease. The spasms were relaxed when the child was brought under the influence of chloroform, but as soon as its inhalation was suspended, they again returned. No post-mortem could be made.

The most interesting features about this case were the very limited region of muscles implicated, and more particularly the absence of trismus. The age at which the disease occurred is also remarkable, as no case of regular tetanus has been previously recorded in a child under twenty-two months.

Reviews.

THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES. By Freeman J. Bumstead, M. D. Blanchard & Lea, Philadelphia. 1861. Sold by Roman & Co., Montgomery-street, San Francisco.

IN the last number of the *Journal* we stated our intention to lay before our readers a further notice of the contents of Dr. Bumstead's work on Venereal Diseases. Since then we have carefully read it, and we know not how we can better occupy a few pages of the journal than by giving somewhat at large the suggestions that have presented themselves to us during its perusal, although in so doing we take up a larger space than is usually devoted to our reviews. The work, however, contains so much that is new and valuable on the subject of syphilis, and so much from which we must dissent on the treatment of gonorrhœa, that whilst we with pleasure call attention to its merits, we think it our duty at the same time to point out those portions of it which are opposed to the results of our experience.

It would seem as if the interesting field of investigation which has been opened up by the rapid progress of our pathological knowledge in all that relates to the syphilitic portion of his subject, has prevented our author from giving that attention to the pathology and treatment of gonorrhœa which it deserves, nor can we be much surprised that such should be the case when consider the vast importance to the human race of the progress that has been made in the subject of syphilis during the last ten years. In his preface the author observes:

> "The additions to our knowledge of venereal, during the last ten years, have been numerous and in the highest degree important. Among the most remarkable, may be mentioned the distinct nature of the two species of chancre; the innocuousness of the secretion of the infecting chancre when applied to the person bearing it, or to any individual affected with the syphilitic diathesis; the removal of certain obstacles to a general belief in the contagiousness of secondary lesions; the fact that syphilis pursues the same course whether derived from a primary or secondary symptom, commencing, in either case, with a chancre at the point where the virus enters the system; the definite period of incubation of the true chancre, and the general manifestations; the inefficacy of the abortive treatment of syphilis; and the phenomena of syphilization and their correct interpretation."

Such are the important topics in relation to syphilis which have been ably elucidated in Dr. Bumstead's work, which contains a carefully drawn up epitome of the most important researches which up to the present time have been made on the subject. In reviewing the work, however, we shall follow the arrangement of the author, and commence with gonorrhœa. And here the first question that suggests itself is what is gonorrhœa?

Simple as the question may appear, and ready as most of our readers would be to give an answer to it, we doubt much if any definition of the disease has yet appeared capable of satisfying the requirements of a rational pathology. Taking the definition as implied in the present work, for in no part of his treatise has Dr. Bumstead attempted to define the meaning of the term, it would seem to be an inflammatory affection of the urethra, having its origin in sexual intercourse, as the introduction of the work commences with this definition: "There are three diseases which from their origin in sexual intercourse have been denominated venereal, viz., gonorrhœa, the contagious ulcers of the genitals, and syphilis." Now, judging from this definition, the only meaning that can scientifically attach to gonorrhœa is that it is an affection of the urethra having its origin in sexual intercourse. That such a definition is essentially wrong, might easily be shown by quotations from other parts of the work itself. At page 47, the author, after alluding to the origin of gonorrhœa from connection with women whilst menstruating, or suffering from leucorrhœa, or even with no detectable disease, observes:

> "The frequency of such cases leaves no doubt in my mind that gonorrhœa is often due to accidental causes, and not to direct contagion."

Amongst the authorities quoted by our author in support of this opinion is that of Ricord, who observes (page 50):

> "Gonorrhœa often arises from intercourse with women who themselves have not the disease. Any one who studies gonorrhœa without preconceived notions, is forced to admit that it often originates from the same causes that give rise to inflammation of other mucous membranes."

After quoting many authorities, all tending to show that gonorrhœa may originate even without sexual intercourse, Dr. Bumstead observes:

> "The inferences from what now has been said of the etiology of gonorrhœa relative to its nature, are so obvious that they require little more than mere mention. If in a large proportion of cases the disease can be traced to no other cause than leucorrhœa, the menstrual fluid, or, in less frequent instances, to excessive coitus, intercourse under circumstances of special excitement, inattention to cleanliness, the abuse of stimulants, &c., and if, when thus originating, it is undistinguishable either by its symptoms, course, complications, or termination from the same affection due to contagion, it is evident that it should be ranked among the ordinary catarrhal inflammations of mucous membranes, or, in other words, that it is a simple urethritis, the connection of which with sexual intercourse is a merely accidental, or at all events, not a necessary circumstance."

And yet, notwithstanding that it should be ranked among the "ordinary catarrhal inflammations of mucous membranes," he has devoted 325 pages out of 680 to the consideration of the disease and its consequences. It is plain from the remarks above quoted, that the disease he has been describing does not answer to the definition of venereal diseases given at the commencement of the work, as it does not always depend for its origin on sexual intercourse, nor even on the application of any special virus to the parts affected. It is in the latter respect, or in the spontaneous origin of this disease that gonorrhœa, as at present understood, ceases to be a venereal disease; for, although both the simple and the infectious chancre can be transmitted independently of sexual intercourse, yet in no instance have they ever been shown to have a spontaneous origin, whilst in a large number of the cases of gonorrhœa that come under our notice in private practice are not only not the result of any specific poison or virus, but a large portion of them have their origin independently of sexual intercourse. It is evident, therefore, that we must modify our definition of venereal diseases, or else remove gonorrhœa to some other class. There are many cases which, undoubtedly, have their origin from the irritation of secretions of the vagina, and in which the pathological conditions thus induced in the male urethra are capable of giving rise to a very analogous disease to a woman previously sound; but even here there is far from being the same specific resemblance as is met with in the propogation of chancres. A virulent gonorrhœa in a man may only give rise to a slight leucorrhœa in a woman; or, *vice versa*, sexual intercourse with a woman with leucorrhœa may be followed by a severe attack of gonorrhœa in the man. If, therefore, we call the gonorrhœa venereal, why not apply the same term to the leucorrhœa that produced it? It is evident, however, that such a nomenclature would lead to endless confusion. We consider, that it would be better in the present state of our knowledge to remove gonorrhœa from amongst the class of venereal diseases, than to retain it associated with such suspicious characters, when evidently it has in so many instances no right to be there. It must not be imagined that this is merely a question of words on which we are now insisting. In the work we are reviewing, we find related a case in which a young man committed suicide, in consequence of having, as he was assured, caught a *venereal disease* from his wife, to whom he had just been married, although subsequent examination proved that she was perfectly free from disease; and there is not a member of the profession who has been in practice for any time, particularly in this country, who has not become cognizant of cases in which a great deal of mental suffering and anxiety has been caused by placing gonorrhœa amongst venereal diseases.

We now come to consider the treatment of this so called venereal disease. To this subject and to its treatment the author has devoted about thirty-one pages, which we consider by far the worst in the whole book. We believe all that is useful on the subject of treatment could with advantage be condensed into about two pages, and certain we are that our patients would get over the gonorrhœa quite as rapidly, and with far less chance of injury to their stomachs, than by following the instructions of our author. Putting all preconceived notions out of the question, what have we got to treat? Why an inflammation of the urethra, an inflammation of a small portion of a mucous membrane, manifesting itself with different degrees of intensity, but generally at first confined to a small surface. What is there, then, in the peculiar anatomical arrangement or physiological functions of the part, which would tend to introduce any modification in the morbid process going on in an inflammation of the urethra, so as to require a different treatment from that of the same process taking place in other mucous membranes? In regard to the anatomical structure, we have instead of an open surface such as we have in the eye, or a large canal as in the vagina, a small tube the surface of which it is impossible to see, and the pathological condition of which may to some extent be modified by the contact or even pressure of its opposed surfaces when in a state of inflammation, although something of the same sort takes place in the pressure exerted by the ocular and palpebral conjunctiva, particularly when inflamed. Another condition in the anatomical structure of the mucous membrane of the urethra is that it is situated on a base admitting of considerable expansion and contraction, and this is not at all under the influence of the will. The mucous membrane of the digestive apparatus, however, is somewhat analogous to it in this respect, particularly in the pharynx and at the lower part of the rectum; in fact, in each of these places the membrane is subject to much greater movements and stretching than in the urethra. There is nothing, therefore, in the anatomical arrangement of the urethra which, as far as we can see, should impress any peculiar character on the morbid processes it is subject to in common with other mucous membranes.

When we come, however, to consider the physiological functions of the canal, we at once meet with an element which is likely to impart a distinctive character to the morbid processes to which it is subject, and which may require some modification of treatment. The passage of so irritating a fluid as the urine over an inflamed mucous membrane, already deprived of its protecting layer of epithelium, cannot fail to produce an amount of irritation which must tend to keep up any inflammatory process that has been once started. In this respect, and in this respect alone, should the inflammation of the urethra run a different course and require a different treatment from that of other inflamed mucous membranes; and, surely, it does not require thirty or forty pages of poly-pharmacy to enable us to get over this difficulty. Such, at least, are the conclusions to which an *a priori* view of the subject would lead, and fortunately for the stomachs of our patients, these conclusions are fully borne out by experience. Some years ago, when advocating the simple treatment of gonorrhœa (see *Pacific Med. and Sur. Journal* for 1858), we stated that by the faithful use of cold water injections after urinating, so as to wash away the urine, the disease could almost always be controlled by local means. By this means we bring the inflamed mucous surface of the urethra into much the same condition as that of other mucous membranes, and as might be anticipated, it then yields to much the same treatment. In the milder cases, the simple injection of cold water is sufficient to cause the discharge to disappear in the course of two or three days, without having recourse to any internal remedies—in fact, it will often go away of itself. In most cases, however, the use of a slightly astringent injection is required—Thompson's eye-water, or a solution of chloride of zinc.

We propose, however, in some subsequent number to discuss the treatment of gonorrhœa, and shall then show how a rational pathology is supported by the results of treatment. The time, we believe, has arrived for as great a reform in our views as to the pathology and treatment of gonorrhœa, as has taken place in relation to syphilis.

We now come to consider our author's observations on gleet, and here we must dissent *in toto* from the serious view he takes of the disease, as expressed in the accompanying paragraph:

> "Hunter, in his work on Venereal, states that 'a gleet is perfectly innocent with respect to infection,' and that in the relapses which frequently occur, 'the virus,' in his opinion, 'does not return.' This statement, though often refuted, still finds place in many works, which are in the hands of medical students. A doctrine more dangerous to the peace of families can scarcely be promulgated. It is, indeed, true, that men are occasionally met with who have for years suffered from gleet, and who have yet had frequent connection with their wives with impunity, but where contagion ceases and im-
> munity begins, no one can tell; and even if we were able to pronounce a
> scharge of a certain degree of purity innocuous, we could not see the effect
> on it of a few hours' sexual indulgence. It may at the present moment
> plai wholly mucous, and entirely innocent of contagious properties, and yet in
> does no time hence be purulent, and in the highest degree dangerous. The
> ment of th one can pronounce sexual congress safe, so long as an urethral dis-
> course, nor even on th replying to the frequent questions of patients on this
> It is in the latter respect, not only avoid incurring the responsibility of allow-
> gonorrhœa, as at present u r to dissuade from it."

although both the simple and of Hunter, from which our author dissents,
dependently of sexual intercou opinion he expresses. The reason given

for looking on gleet as a serious disease, and Hunter's views as a doctrine most dangerous to the peace of families, might be applied with equal force to every case, even of the mildest form of leucorrhœa, for certain we are that gleet does not more frequently convey disease to the female, than does leucorrhœa give rise to gonorrhœa in the male; and if sexual intercourse were to be restrained in every case of leucorrhœa, we fear the peace of families would be much more frequently interfered with than it ever would be by following out Hunter's views. The larger number of cases of gonorrhœa which have been accompanied by much inflammation, and where the disease has not been checked until it has reached the deeper portions of the urethra, are followed by a chronic discharge, lasting for months, and sometimes for years, and about which we tell our patients not to trouble themselves, as it will probably wear off in a few months, or, if it continues, it will do no harm. We should as soon think of advising celibacy under such circumstances, as we should because the labia were slightly moistened by vaginal mucous. We consider the doctrine taught by our author, not only wrong, but highly mischievous. These unnecessary fears of the serious significance of slight affections of the genital organs, are the stock-in-trade of which the venereal charlatans are constantly making use in their disgusting advertisements, and we are sure that their business would be much less successful, could more correct views of the comparative harmlessness of many of these affections be diffused amongst the public. In order that this should be the case, it is necessary that the reform should begin at home.

The author concludes the portion of his work on gonorrhœa, by a long disquisition on the pathology and treatment of some of the sequalæ of the disease. This portion of the subject occupies more than two hundred pages, and although all that it contains is quite up to the present state of our knowledge, and is moreover illustrated with some well-executed and faithful wood-cuts, yet we think a great deal of it might have been profitably omitted in a work devoted to venereal diseases. For instance, there are more than one hundred pages taken up with stricture of the urethra, and the various operations for its relief; in fact, the subject could not have been more fully treated, in a work devoted to diseases of the bladder and urethra. We regret this, not but that the matter contained in it is valuable, but because by necessarily increasing the bulk and expence of the work, it will render the important information contained in it on syphilitic diseases less available to the profession.

In a future number, we shall review the remaining portion of the work, or that which relates to syphilis. In the present article we have not hesitated freely to criticise what we consider to be erroneous in the work before us, nor should we have done this, had it not been that the opinions we have expressed have been entertained by us for some years, and have been subject to experimental tests which have satisfactorily proved their truth.

Since writing the above, we have received from Europe the first volume of Holmes' System of Surgery, from which we make the following extract. It occurs in an article on inflammation, written by M. Simon, and is so completely in accordance with the views we have above expressed, that we give it at length:

"It has been too much the practice to regard these as exceptional facts in the history of inflammation, or to deem them sufficiently accounted for when cowpox, chancre and clap are designated 'specific' diseases. Waiving for a moment any discussion of what constitutes the undoubted 'specificity' of the first-named two inflammations, it may on good grounds be asked with regard to gonorrhœa, whether it be anything more than a common inflammation of an affected membrane—an inflammation which perhaps first originated, and may with infinite frequency re-originate from local accidents of dirt and lust; and which, having thus originated, shows a more communicable character than some other catarrhal inflammations—than common cold in the head, for instance, only because genitals come into inoculative contact more frequently than the eyes and noses. In the writer's opinion there is ample reason to question the popular impression, that only 'specific' inflammations are communicable; much reason for suspecting it, on the contrary, to be a generic and essential property of inflammation, that its actions (or some of them) are always in their kind to some extent contagious.

"Inflammations of the conjunctiva are, in this point of view, especially deserving of study. It has been extensively imputed to them that they are communicable; and although Dr. Mackenzie reserves the title of 'contagious opthalmia' for that severest variety, which has been popularly known as Egyptian, he, in strong terms, claims the property of contagiousness for the common catarrhal ophthalmia of this country. Dr. Guillie proved the contagiousness of the infantile ophthalmia on which his experiments were made; Sir Patrick Macgregor's large experience furnished him with many instances where apparently common ophthalmia displayed contagious properties; and the testimony of these two writers might properly be here quoted, were it not that the following facts seem briefly to exhaust all sources of doubt on the subject. Among ophthalmic surgeons, especially in Germany, there has been a practice of treating that vasculo-nebulous state of cornea, which is called pannus, by artificially superinducing an attack of acute ophthalmia; and the agency which has been employed for this purpose has been the insertion of some contagious secretion. It is obvious that this method of treatment gives extensive opportunities for testing the communicability of various inflammations; and many such experiments are referred to in Dr. Piringer's work on ophthalmia. This author states that in his own experience, including a few cases in which his assistants had acted for him, he had 87 times (*i. e.* operating on 87 eyes of 52 different patients) succeeded in exciting conjunctival inflammation by the contact of an inflammatory product; that the material for the operation was taken—in 29 cases from eyes with infantile ophthalmia, in 11 cases from eyes with gonorrhœal ophthalmia, in 2 cases from the urethra of a boy aged three and a half years, in 40 cases from eyes with acute decidedly non-gonorrhœal ophthalmia, in 2 cases from the eyes of a child with acute palpebral ophthalmia, in 3 cases from eyes with old-standing chronic ophthalmia. The evidence of such experiments becomes (as Dr. Pirenger observes) overwhelming, when it is considered that, in performing them the secretion was often carried, as we carry vaccine lymph, over a considerable distance from case to case; and that symptoms of ophthalmia not only always began within a few hours after the operation, but began only in that eye which had received the morbid material. And now, it may be asked, in what sense, not involving a *petitio principii*, can the word 'specific' be applied to those various conjunctival inflammations which showed themselves communicable? and, if they were not 'specific' but common inflammations, where is the reason for believing that the communicability of gonorrhœa constitutes it a 'specific' disease?" J. B.

Editor's Table.

Over-Education.

Our attention has lately been drawn to this subject, from having met with several cases, in which the health of our patients was evidently suffering from over application to study, and even with some in which the mind itself was becoming dulled, by too much mental exertion. There can be no doubt but that these injurious results of our high-pressure system of education are owing to ignorance on the part of parents and teachers, as to the amount of work the brain will bear without injury, for the sufferers are always to be found in those families where the children are the objects of the greatest care and affection. It is the girls that generally suffer the most, at least as regards their physical health; whilst the only cases we have met with in which the mental faculties were dulled, has been amongst boys who, by a forced system of gymnastics and more open-air exercise, are enabled to counteract, to a certain extent, the injurious effects of over-study on their bodily health, and thus go on until the brain itself becomes the only organ specially affected. It is not our intention to describe the symptoms produced by this over-work of the brain, as they will readily present themselves to the minds of our readers.

The most frequent cases are found amongst girls from thirteen to sixteen, and are generally caused by their own ambitious desire to make up by two or three years extra mental labor, the deficiencies of an education, which up to that time has been, from different causes, inevitably neglected. The mischief that is being silently done by this over-working of the brain is such, that we are sure there are but few of our readers practicing in the cities of this State who have not met with examples of it, or at least who will fail to detect them, if their attention is directed to their discovery. The reason why they are so frequently overlooked is, that the ill-health is apt to be attributed to some derangement of the other organs, although these derangements are but the secondary results of the over-working of the brain. If more correct ideas of the true objects of education could be diffused amongst parents and teachers, this evil would be readily corrected, and the rising generation, instead of being crammed full of knowledge with broken-down constitutions, would as they grow up at least be possessed of robust health, and we believe of more vigorous intellects.

In connection with this subject, we cannot do better than make an extract from that interesting work "Grindon on Life," expressing as it does completely, our views. Under the head of "Curiosity the Appetite of the Mind," Grindon observes:

"Of all the evils man is subject to, assuredly not the least is *incuriousness*; perhaps it should be classed among the greatest. Certainly there is no evil more abounding. How many listen to philosophy, if they can be

> said to listen at all, only with polite aversion, as though the speaker were discoursing in an unknown tongue; how many are the minds whose appetite is altogether vitiated and depraved, which is tantamount to being lost, turning away from all really substantial food——[for example, to the fashionable *-isms* and *-pathies* of the day.—ED.]—as if it were so much poison. It needs not that a man be *uneducated* to be incurious. It is not so much of education, commonly so called, that curiosity comes; but of quickening the mind with life to educate *itself*. The customary endeavor to instil a large amount of mere dry, unvitalizing knowledge tends to repress curiosity rather than to excite it. Grammars and lexicons, whether of language or of any other form of knowledge, serve oftener to kill than to make alive. Lessons, as such, or in the sense of parrot-knowledge, are only 'mind-slaughter.' If it be desired to promote a good appetite, whether of mind or body, it is not to be done by gorging, which soon destroys it utterly; the body must be taken into the playgrounds of nature, and the mind be inspired through the imagination, upon which curiosity itself depends. A child's imagination can hardly be too much encouraged, provided always that it be guided to some resting-place, where it can repose awhile, and in due time, onwards again, but always with an interval. To excite a child's imagination, sets all its best feelings in motion; mere facts are as useless as they are dreary; they die upon a child's heart like rotten leaves."

Not only does the bodily health suffer from this over-forcing system of education, but, as Grindon observes, it is "mind slaughter," and totally incapable of attaining the end that is aimed at. It has lately been shown in a most carefully conducted inquiry on the subject of Education, undertaken by the English Government, that those children who study but three hours a day, really learn more than those who study six.

This, however, is not a place for a disquisition on education, our only object is to direct the attention of the profession to an evil, which is certainly producing a great deal of mischief, both mentally and physically, and against which it is our duty as a body to protest.

HEALTH OF SAN FRANCISCO.—During the month of November, the mortality for the city was 165, being a slight increase on that of the preceding month. The deaths among children under three years of age are, however, less, the increased mortality being amongst the adult population. Several cases of typhoid fever have occurred at Camp Alert, near the city, four or five of which have proved fatal.

Medical Department of the Army.

WE are indebted to the Medical Director of the Department of the Pacific for the following information respecting the movements and stations of Medical Officers:

In October last, orders were received from Washington, at the Head Quarters of the Department of the Pacific, for the transfer of a large portion of the Troops to the Atlantic coast. At that time twenty Officers of the Medical Staff of the Army were serving in this Department. Of these, eleven have sailed with Troops for New York, and one (Assistant-Surgeon George Hammond) is under orders to proceed to the East. The names of those who have sailed are:

SURGEONS.	ASSISTANT-SURGEONS.
Charles McCormick,	Jonathan Letterman,
John F. Head,	John J. Milhau,
Thomas A. McParlin,	Edward P. Vollum,
William F. Edgar,	Pascal A. Quinan,
Joseph B. Brown,	John C. Herndon.
Alexander B. Hasson.	

Nine Officers of the Medical Staff remain in this Department. Their names and stations are as follow:

NAMES.	STATIONS.
Surgeon Richard H. Coolidge, Medical Director and Purveyor,	Head Quarters, Department of the Pacific, San Francisco.
Asst.-Surgeon John F. Randolph,	Presidio of San Francisco.
" Anthony Heger,	Fort Vancouver, W. T.
" Robert O. Craig,	Alcatraz Island, Cal.
" Lewis Taylor,	Camp Pickett, San Juan Island, W.T.
" John Vansant,	Fort at Fort Point, Cal.
" John C. Shorb,	Benicia Arsenal, Cal.
" Abel F. Mechem,	Fort Yuma, Cal.

The names and stations of the Medical Officers of the Regiments of Volunteers, called into service of the United States from California are subjoined:

NAMES.	STATIONS.
First Cavalry.	
Surgeon John H. Prentiss,	Camp Carleton, San Bernardino, Cal.
Second Cavalry.	
Surgeon Jonathan M. Williamson,	Camp Alert, San Francisco, Cal.
Asst.-Surgeon Charles C. Furley,	Fort Churchill, N. T.
First Infantry.	
Surgeon James M. McNulty,	Camp Latham, Los Angeles, Cal.
Asst.-Surgeon Peter W. Randle,	Oak Grove, near Warner's Ranch.
Second Infantry.	
Surgeon Isaac Parry,	Fort Colville, W. T.
Asst.-Surgeon Simeon S. Todd,	Presidio of San Francisco, Cal. (Under orders for Fort Humboldt.)
Third Infantry.	
Surgeon Robert K. Reid,	Benicia Barracks, Cal.
Asst.-Surgeon Chas. A. Kirkpatrick,	Fort Seward, Cal.
Fourth Infantry.	
Surgeon Stephen F. Elliott,	Camp Siegel, Auburn, Cal.
Asst.-Surgeon Edmund A. Tompkins,	Camp Siegel, Auburn, Cal. (Under orders for Oregon District.)
Fifth Infantry.	
Surgeon David Wooster,	Camp Union, Sacramento, Cal.
Asst.-Surgeon William H. McKee,	Camp Union, Sacramento, Cal.

Camp Union, Sacramento.

SURGEON DAVID WOOSTER, 5th Infantry Volunteers, stationed at Camp Union, has kindly furnished us with the following abstracts from his monthly reports to the Medical Director (Dr. Coolidge) for the Department of the Pacific:

During the month of October, 92 cases were admitted on the sick report; this includes the most trifling complaints, that in civil practice would never come under the care of the physician. Of these 92 cases, 10 were intermittent fevers, 1 typhoid; erysipelas, 2; bronchitis, 2; pneumonia, 1; venereal diseases, 29; rheumatism, 3. The remaining 44 cases are scarcely worthy of notice. No deaths this month. There were 7 cases of diarrhœa, but they gave us not the least trouble, and were cured in twenty-four hours with bismuth and mas hydrargyri. The total strength for this month was 401 officers and enlisted men—hence there were *reported* sick during the month at the rate of 229 for 1,000 men. 50 were returned to duty.

During the month of November, 144 cases were placed on the sick report. Of these, 21 were of intermittent fever; erysipelas, 2; variola, 1; diarrhœa and dysenteria, 19; pneumonia, 1; pericarditis 1; venereal diseases, 52; rheumatism, 11; ophthalmia, 5; luxation of head of radius, 1.

The case of variola terminated fatally, on the fifth day after the admission into the contagious ward, not of the effects of the malignant disease, but of embole of the veins of the outer portion of the right thigh: these obstructions affected the deep veins only. In some, the coagula were formed in softened semi-fluid and fluid condition, of a dark brownish hue. The whole right extremity was swollen to twice the dimensions of its fellow, and though pale-white externally, as soon as the superficial facia was passed, the altered structures began to appear, and nearer the bone of the thigh, the muscles presented the appearance of having been bruised and lacerated to a jelly. The iliac veins were not examined, but as the transformation and muscular alteration affected even the muscles of the hip, it is possible that embole, if sought, would have been found in the internal iliac or its branches also. There was not the least sign of gangrene of the extremity, either in appearaece or odor. The patient complained of numbness of the affected extremity for two or three days before death. I am indebted for the above details of this case to Assistant-Surgeon McKee, who made the autopsy at three o'clock A. M., a few hours after death.

The other fatal case, reported pericarditis, was not examined after death, bnt from the symptoms described to me by Dr. McKee, I have no doubt the diagnosis was quite correct.

The mean strength of this regiment for November was 800 officers and men; ratio of cases sick, etc., per 1,000 was 288 1-2; ratio of deaths, 2 1-2 (two and one-half) per thousand.

When it is considered that these are the first two months of camp life, for the men, and that during the month of November they have been exposed to the rain nearly every day, without overcoats, and that they have no stoves or fires in their tents, notwithstanding the hygienic regulations of the Camp in other respects are admirable, it is surprising that the sick-list has been no greater, and that the mortality-bill is not trebled.

DAVID WOOSTER, Surgeon 5th Inf. Cal. Vol.

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TO PHYSICIANS.

THE undersigned desire to call the attention of the medical profession to a new preparation manufactured from *Cinchona Bark*, and which, after ten years' trial in the French hospitals, has been admitted into the Codex of the "Academy of Medicine" on the acceptance of the reports of MM. Delondre and Bourchadat, (see *Revue Therapeutique Medico-Chirurgical*, May, 1858.) The high price and scarcity of the South American *Cinchona* and the consequent difficulty of obtaining sufficient supplies of a reliable sulphate of quinine have induced physicians to recommend again the use of the powdered bark of all kinds of Cinchona, which contains both Quinine and Cinchonine; but the powder is always uncertain in its operation from the variable proportion of the alkaloids which it contains.

To obviate this inconvenience MM. Delondre and Bourchadat prepared an extract faithfully representing all the useful principles of Cinchona, and on the recommendation of the "Academy of Medicine," the French Minister of Agriculture and Commerce approved the formula for the composition of this extract, which is called *Quinium*,* consisting chiefly of the quinine and cinchonine of the bark, together with their associate alkaloids, (quinine and cinchonine,) divested by the process of manipulation of the useless organic acids present in its native state. In the manufacture of the quinium, we have followed the course advised by M. Delondre, and use a true Calisaya bark, thus producing a compound in which the two alkaloids, quinine and cinchonine, exist in the proportion of two of the former to one of the latter, seventy-two grains of the quinium giving by analysis sixteen grains of quinine and eight grains of cinchonine. The quinium may be given either in pills or wine, the *maximum dose* being one hundred and sixty grains. The wine (as made by ourselves after the original formula) contains in one fluid ounce tengrains of quinium, and may be given in doses of one to two tablespoonsful three times a day. The pills containing in each two grains of quinium may be given in doses of two or three a day, as a tonic and febrifuge. (It is recommended that a small quantity of wine be taken after each pill.)

We also desire to call attention to the following, from *Pacific Medical and Surgical Journal*, (March, 1860,) in relation to our preparation of Monsel's Salt:

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* It is to M. Delondre, (known by his nom de plume of A. Labaraque,) that Europe is indebted to the employment of sulphate of quinine in the treatment of intermittents, and we hailed with pleasure the announcement that he had succeeded in presenting cinchona bark in a more favorable position as a remedial agent, than ever before. We refer to his extract made from cinchona bark, which he presented to the consideration of the Academy of Medicine.

Quinium is a compound representing cinchona bark, divested of all inert matter which serves only to oppress the digestive organs and retard the action of the alkaloids. * * * * * The numerous traits of quinium by M. Delondre in France, and MM. Laverau and Wahn in Algeria, have furnished most happy results, and fully established its claims as an agent of great therapeutic value. The difference between the utility of quinium and the sulphate of quinine is shown in a forcible manner by M. Delondre, he considering that "though the sulphate of quinine is still invaluable in its power of cutting short the paroxysms of a recent intermittent fever, the quinium for the treatment of a chronic fever is possessed of superior power, and that in fever countries, in the midst of the endemic causes which give rise to intermittents, the advantages of quinium is remarkably manifest."—[Journal de Clinic Medicale de Pharmacie et de Toxicologie, March, 1858.]

THE
Pacific Medical and Surgical Journal.

Selections.

On the Uncertainty of the Sputum as a Diagnostic Feature in Pneumonia.

BY THOMAS WILLIAMS, M. D., F. R. S.,
Physician to the Swansea Hospital.

THE following cases are highly instructive. They convey, in a practical sense, a lesson of great value. It constantly occurs that a case of true pneumonia passes through all its stages to recovery without once exciting the suspicion of the practitioner as to its real nature. It is allowed to pass under the vague name of "influenza," "feverishness," "cold," or "slight fever," &c. There is no expectoration; there is no cough; there is no pain in the side; no obvious symptom is present by which the attention is invited to the chest. If a stethoscopic examination is made, it is done hurriedly and carelessly, and the case is dismissed as something which it is not. These oversights are committed because students are taught by nearly all standard authorities to lay faith in the least variable symptoms, as signs of the disease.

Another class of cases mislead by the hemophtysic character presented by the sputum. Pure blood, of a bright scarlet color, in portions of variable amount, is mixed up with the sputum, the latter being colorless as in bronchitis. Able and cautious practitioners have condemned such cases as phthisical, and therefore fatal, in which the most complete and lasting recovery has afterwards taken place. Fallacy in this direction is painful in the extreme. The verdict of death is pronounced over those whose life is in no danger. Character and confidence are destroyed, and the medical attendant becomes the greatest sufferer.

In the description of the following cases the strictest brevity will be observed. The fact that a pneumonic consolidation of the lung existed has been carefully determined in each instance by auscultatory examination. To mention the familiar signs of such consolidation were to occupy space unnecessarily; the object being to show how extremely uncertain, variable, and untrustworthy the sputum—the expectoration—is as a symptom of pneumonia.

Case 1.—T. M——, aged thirty-eight; a fine, healthy, tall, muscular man. Consolidation of middle and inferior lobes of the right lung. Expectoration considerable in quantity for six weeks, blending twice or thrice a day with teaspoonfuls and tablespoonfuls of bright scarlet blood; rest of sputum not rusty nor viscid, but muco-purulent. Was very ill for two months; returned to his employment in three months. Three years have elapsed since the date of this attack; the man is now quite well; the lungs are quite free from any evidence of tubercle. The wife and friends have never forgiven me at the time of the attack that he was consumptive and would not recover.

Case 2.—Mr. S——, aged forty, a teetotaller, a broad-chested, firmly-built man, a baker and grocer. Nearly the whole of the right lung hepatized. For three weeks was very ill, without any cough or expectoration whatever. Suddenly a cough occurred. "Spitting" of frothy mucous followed. In two days the expectoration amounted to a pint; in four days, a quart in quantity. It now became most offensive and disgusting to the smell. For a month it continued at this rate, and of this quality. It gradually ceased. In three months the man was quite recovered. In this case the two first stages of engorgement and red hepatization were marked by no expectoration whatever. The third stage, that of grey hepatization, was strikingly indicated by the characteristic sputa.

Case 3.—J. W——, aged eighteen. Fine cripitation; dull percussion-note; bronchophony under left scapula; rusty expectoration, copious. Was quite well in nine days.

Case 4.—Mr. J——, aged forty-six. Pneumonic signs very clear under and around the left scapula; sharp heat of surface; hurried breathing. Was ill fourteen days. Not the slightest particle of anything coughed up from first to last. No dry cough.

Case 5.—Rev. Mr. ——'s son, aged seventeen. Very distinct pneumonic signs over a small space of the right lung between the two scalpulæ. Was ill twelve days. Threw up once or twice only by cough a slight quantity of clear white mucous. No other expectoration whatever.

Case 6.—W. F——, aged thirty. Pneumonia of middle and lower parts of the left lung. Signs unquestionably distinct. Was ill for about a fortnight. No expectoration whatever during any stage.

Case 7.—The Rev. Mr. ——, aged twenty eight. Pneumonic signs traceable clearly from base of right lung forward. Expectorated a small quantity of uncolored mucus. Was quite well in sixteen days.

Case 8.—J. W——, aged eighteen. Lung on right side, at base and side, solidified. Was ill sixteen days. No expectoration whatever; only once a little "colored stuff" came up to his mouth by coughing.

Case 9.—T. P——, a copperman, aged twenty seven. Distinct pneumonia of right lung; middle lobe lightly affected. Was confined to the house nineteen days. One day a small portion of tinged, not rusty sputum was coughed up; no other expectoration, but a little white mucous.

During the past winter and spring twenty-one other cases of this character were noted by me. The notes of each in my note-book were short. They are recorded especially for the purpose of tracing the history of expectoration in pneumonia. On every occasion the diagnosis was carefully and correctly made. In two only out of these twenty-one cases distinctive rusty sputa occur.

Thus, in thirty cases, twenty-six of which occurred in the same season, and therefore under the same climatal conditions, only five presented the supposed characteristic symptom, the "rusty expectoration." In one it was hæmoptysical; in two only did grey hepatization take place that is, if the peculiarily offensive, copious sputum is to be regarded as the distinctive sign of that stage. In twenty cases, cough and expectoration were, in truth, totally absent at every stage. In two the sputa were slightly tinged with blood, as is the case in slight hæmoptysis. In one it was copiously intermixed with bright blood.

It is, therefore, undeniable that a pathological act, such an inflammation, involves the fluids as well as the solid tissue. The fluids alter in composition either primarily or secondarily, and thereupon follows a change in the mutual relations between the solids and fluids. Under this changed relation certain parts of the blood are extravasated to the retention of other parts. Viewed in this light, the difference in pathological products of different structures under inflammation admit of a satisfactory explanation. The product which fills the pulmonary cells in pneumonia is, undoubtedly peculiar. That excepted which is contained in vessels of the Malpighian corpuscles, the blood does not lie so near the exterior in any other part of the body as in the pulmonary air-cells. The escape of the blood-corpuscles from the vessels into the cells with the inflammatory exudation, is only an accidental result, not a necessary part of the process. If a large vessel ruptures, a visible quantity of unmixed blood is poured out; if several small ones—capillaries only—the rusty tinge is uniformly mixed with the substance of the sputum. If no vessels at all are mechanically ruptured, no color appears. The sputa are colorless, exhibiting always, under the circumstances, a singular viscidity, such as is not observed in any other pathological product. It is highly gifted with vital properties; microscopic growth and changes occur rapidly; it is capable of almost immediate resorbtion. In a few days frequently a considerable consolidation will disappear. If the affected portion of the lung were simply in a state of ecchymosis, the entire history would be wholly different. As stated by Dr. Walshe, the blood is highly hyperinotic; the serum milky and fatty; the sputum overcharged with chloride of sodium; the urine with oxalates and triple phosphates; the respiration increased in frequency; the skin pungently heated. The whole system, in every sense, sympathizes with the local morbid action. If the disease consisted merely of an act of bloodletting into the lung tissue, as supposed by Dr. Flint, such phenomena would not occur, because they would be unnecessary. The argument held by Dr. Flint against venesection cannot, therefore, for a moment be admitted. The exudation into the lung tissue in pneumonia is an act of pathological excretion, determined by two conditions—1, an altered composition of the blood; 2, favorable anatomical conditions afforded by the lung structure for secreting the elements of a peculiar proximate principle from the blood. The condition of the general system, coexisting in time with this pathological act of exudation, may be either sthenic as asthenic, such as never exists under the circumstances of loss of blood. —*London Lancet.*

WHOOPING COUGH.—A recent number of the London *Medical Times and Gazette* contains a letter from Mr. Foster, M. R. S. C., on the virtues of the common clover hay as a remedy in whooping cough. He has used it since last summer in about fifty cases, and found it to fail only in three or four. Ri. Trifolii in fœno. oz. ij; aq. bullient, Oj; macerate for four hours and strain. A child five years old may take a tablespoonfol three times a day. A syrup as follows: Ri. Trifol. in fœn. oz. oz. ijss; sacch. cand. oz. ij.; aq. bullient Oj.; macerate the hay in water for an hour with gentle heat, then boil to proper consistence. Two tablespoonfuls four times a day. A fluid extract is also prepared.

On Dislocations of the Shoulder Joint.

PROFESSOR N. R. SMITH, M. D., of the University of Maryland, communicates to the *American Journal of Medical Sciences*, a novel and effective method of reducing this dislocation, pursued by him for some twenty years past, the success of which entitles him to confidence in recommending it to the profession.

In first reviewing the anatomical mechanism of this joint, and that of its dislocation, he says, that though classed with the ball and socket articulations, it can scarcely be said to possess a bony socket, and the capsular ligament being little else than a loose cynovial capsule, contributes but little towards the security of the joint. This deficiency is supplied, however, by four powerful muscles arising from the scalpular, which embraces the head, and, inserted into its base, perform the office of a powerful contractile capsular ligament, which, together with the mobility or the scapula—enabling it to accommodate its shallow glenoid to the various movements of the humerus—preserves the integrity of the joint, the coracoid and acromial processes and ligament, with the tenden of the biceps, each lending support to the bone in its peculiar direction. If the arm be violently abducted, the thin capsule is strained and ruptured below, the muscular capsule and deltoid are relaxed, and their very powerful muscles, put violently upon the stretch, draw the head of the bone into the axilla. If now the pectoral muscle is more violently stretched than the latissimus, by the humerus being driven backwards as well as outwards, the head may be dragged forward under the coracoid. In an extensive surgical practice of forty years, Professor S. has seen but three cases of displacement upon the dorsum of the scapula, and only one was recent. A person falls forward with violence, the elbows encounters the ground, which inflicts a forcible counter-stroke in the direction of the length of the humerus. The arm it, as the same time, driven forward upon the breast, rendering tense the lattissimus dorsi, the teres major, and the posterior border of the deltoid, all of which co-operate with the counter-stroke in forcing the head over the border of the glenoid backwards. The mechanism of reduction is in most respects similar to that of dislocation, muscular force being concerned in both.

The operation of reduction consists in extension, counter-extension and manipulation; counter-extension being the mere fixing or rendering immovable the scapula; the head of the humerus alone requires to be moved. The plan recommended, is to make the counter-extension from the opposite wrist, an expedient directly at variance with the commonly received principle, because remote from the bone to be supported. The continuity of ligament, bone, and tendon, by which the two scapulas are bound together, induced our author to adopt this method as the most efficient to secure the immobility of the scapula. In some of the first cases, he placed the patient in a chair, and directed two strong persons to make steady horizontal traction from the two wrists; as soon as the spasmodic resistance of the muscles was overcome, the head of the bone was disengaged, and the muscles which help us in such cases, suddenly lifted the head into its place.

This method causes no appreciable pain, but rather relieves the suffering of the patient caused by the pressure of the head of the humerus. If there be unusual muscular development, or the dislocation be of long standing, "I place the patient in a chair, sitting a little on one side of it, so as to allow room on the side of the injury for the operator's foot. I then pass a piece of stout muslin folded around the chest, and under the axilla of the injured side. The tails of it I carry horizontally to the opposite side, one in front, the other behind, and extending the arm horizontally, bandage them firmly to the wrist on the sound side, leaving the ends projecting, to be well secured to the wall, or other unyielding substance. I then pass an ordinary roller over the top of the injured shoulder, and back and forth, twice under the muslin band, to prevent it slipping down. Then I continue the same roller under the bottom of the chair and over the shoulder three or four times. This helps to give steadiness to the scapula, and especially to prevent the involuntary rising of the patient from the chair, or the tilting of the scapula upwards, when it is necessary to make the manipulation of which I am to speak. I now attach the extending band to the wrist of the injured side." After defending at considerable length this step of the operation, he concludes by directing extension to be made by two persons, outwards and a little downwards, gradually raising the arm to a little above the horizontal direction. The force may be gradually increased and continued until the muscles become fatigued and finally relaxed, when the head will often slip into its place without resort to manipulation. When this does not occur after a lapse of a reasonable time, the surgeon is to place his knee in the axilla and manipulate according to the common practice, the extension being continued. When the head is under the coracoid, the procedure is nearly the same, traction being a little more backwards and upwards. Of dislocation upon the dorsum of the scapula, he has seen but one case so recent as to justify the attempt at reduction. In this case he failed in the method usually recommended. "I then carried a band over the front of the shoulder, one tail under the axilla, the other above it. These I united, carried them backwards and inwards obliquely, and secured them to the wall. Then I made traction strongly from the wrist almost directly forward, without much difficulty I thus drew the head of the bone forward over the margin of the glenoid, and had the satisfaction to see it slip into its place." When much resistance is expected chloroform should be freely administered until relaxation is complete; less than this causes spastic rigidity of the muscles and defeats the object.

Statistics of Resection.—The following statistics are from Dr. Heyfelder's recent work on resections: "Resection of the hip-joint has been performed in 71 cases, the first operator being Anthony White, in 1815, and the results being 32 deaths, 33 cures, and 5 unknown; total resection of the knee-joint in 183 cases, the first operator being Filkin, of Northwich, in 1762, the results being 54 deaths, 125 cures, and 4 unknown; partial resection of the knee-joint in 30 cases, the results being 46 deaths and 20 cures; total resection of the foot-joint in 22 cases, amongst which are 3 deaths and 19 cures; partial resection of the same in 77 cases (8 deaths and 69 cures); resection of the astragalus in 67 cases (9 deaths and 58 cures), Fab. Hildanus being the first operator in 1670; resections of the calceneous in 84 cases (1 death and 83 cures), the first operator being Fornisus, in 1669, &c. Concerning the resections of the upper extremities, we find amongst others 288 cases of resection of the elbow-joint (32 deaths, 220 cures, 6 doubtful, 17 partially successful, and 13 failures). Altogether, 2662 resections have been made; the results are known of 2241 cases; there have been 452 deaths and 1616 complete cures; in 1789 cases the life has been saved; 173 cases have been unsuccessful; and of 421 the result is not known."—*American Medical Times.*

Croup, its Varieties and Treatment.

Dr. E. Whittle, senior surgeon to the South Dispensary, Liverpool, believes that the uncertainty among medical men, as to the best mode of treating croup, arises, in some measure, from the confounding of different forms of laryngeal affections, which require, in some respects, different treatment. He divides the affections into seven varieties, which, though strictly speaking they cannot all be called croup, yet are all affections of the larynx, attended with constriction of the glottis, and are often confounded together under the name of croup. 1. Cynanche trachealis of Cullen; true croup, with formation of false membrane, characterized by the suddenness of the attack, and often proving fatal if relief is not early afforded. In the treatment of this variety, he has long since abandoned the old plan of bleeding, and giving calomel and tartar emetic freely; but is more successful by having recourse, in the first instance, to the warm bath and an emetic, followed, if the symptoms persist, by small doses of Dover's powder and nitrate of potash. If the tongue is foul, or the bowels loaded, a dose or two of calomel accompanies the first doses of Dover's powder. Should the disease progress, he would resort early to tracheotomy, before the strength is too much reduced, or the false membrane is deposited far down the trachea. 2. The angina stridula of Bretonneau; pseudo croup of Guersant; acute asthma of Millar, characterized by spasm of the glottis, excited by the inflamed and thickened condition of the mucous membrane of the larynx and trachea, without formation of false membrane. It commences with an occasional hoarse cough, exciting little attention for the first few days, when the breathing becomes croupy, and the cough assumes a sharp, ringing, barking sound. This is, the most common and dangerous form of croup, and very generally confounded with cynanche trachealis. A little temporary relief may be afforded by the old routine of leeching, emetics, calomel, and antimony; but, after a few hours, the breathing becomes more stridulous, the symptoms rapidly increase in severity, and unless tracheotomy be performed, the child soon dies of suffocation. The treatment of this form of croup does not differ from the preceding; but the point is to attend to it before the urgent symptoms come on, and persevere until the shrill barking cough disappears. Should the case be neglected until the breathing becomes croupy, no time should be lost, but tracheotomy at once resorted to. It is in this form of croup that the operation is pre-eminently successful, there being no false membrane to obstruct the tube. Bretonneau describes this disease as of little importance, which may be true in the dry climate in central France; but our author insists that in the cold, damp climate of England, particularly in the winter months, this affection is the forerunner of the most fatal form of croup. 3. Croup complicated with diphtheria, which is diphtheria extending into the larynx, the only treatment for which is tracheotomy. 4. Symptomatic croup, sometimes met with in the early stages of the exanthematous diseases. If treated a cynanche trachealis, the rash will generally make its appearance, and the croup subside. This should not be confounded with that form of croup, often met with in the advanced stages of rubeola, scarlatina, variola, &c. 5. Croup caused by an ulcerated condition of the larynx, either syphilitic, or following the ulcerated throat of scarlatina or variola. The immediate cause of the croupy breathing is spasm, excited by the irritation of the ulcers, and may often be treated successfully by tracheotomy. These cases require the topical application of a solution of nitrate of silver to the larynx. 6. Mechanical croup, from œdema of the larynx, &c., can only be relieved by a timely operation. 7. Nervous croup; laryngismus stridulus, purely a nervous affection, generally a complication of dentition, and mostly met with families of a stumous diathesis. It comes on suddenly, with a convulsion of more or less severity, followed by a shrill, gasping inspiration, something like a whoop after a paroxysm of whooping-cough. The attack may be short, but repeated once or twice in the same night, and it sometimes happens that the child is suffocated at the very outset. With regard to the treatment of this affection, he simply alludes to it as consisting, at the time of the paroxysm, in dashing cold water on the child's face, plunging his feet into hot water, or anything which will give a sudden shock to the system, and in the intervals strengthening the child by the use of tonics, and by having it almost constantly in the open air.—*American Medical Times.*

Iridectomy in Iritic and Choroidal Inflammation, and in Certain Forms of Corneitis.

BY MR. HULKE.

We have extracted the following observations and cases, from a recent number of the Ophthalmic Hospital Reports, with the view of attracting the attention of our readers to the operation of iridectomy (cutting out a piece of the iris through a wound in the cornea) as a means of relieving some cases of eye disease, which obstinately resist every other plan of treatment. We certainly have seen many cases where, we believe blindness would have been averted, had such an operation been known a few years since. The rationale of the operator is to relieve the pressure from the external portion of the eye by establishing an opening for the escape of the aqueous humor, as the operation we described last month was to relieve the outer surface from pressure. There can be no doubt but that to a considerable extent the intractibility of eye diseases to treatment is owing to the peculiar mechanical construction of the organ, and that these two operations of Von Græfe are founded on rational principles.

It is commonly thought by persons, who only occasionally see cases of eye-disease, that the practice of iridectomy is advocated in the treatment of glaucoma only. Notwithstanding the translation of Von Græfe's admirable Memoirs on Iridectomy in Chronic Iritis and Irido-choroiditis, by the New Sydenham Society, in 1859, there are at the present time many who are still not aware that this operation is very efficient in these forms of iritic and choroidal inflammation, and many who have never heard of its great value in certain most desperate conditions of the cornea. It has therefore appeared to me that the publication of a few selected cases would be very useful.

Case 1.—*Iridectomy in Irido-choroiditis.*—James F., æt. 34, an artizan, who had never had syphilis or rheumatism, was admitted into the Royal London Ophthalmic Hospital, with chronic-inflammation of the iris and choroid; this was the fifth attack; the first having occurred six years before. Both eyes were similarly affected, The pupil of the right was irregular and very small (its greatest diameter was about half a line); excepting a small portion above, its margin everywhere adhered to the capsule of the lens, and its area was obstructed by a greyish membrane, vision was reduced to a dim perception of large objects, as a finger, held close to the eye. The globe was hard. I did an iredectomy at the temporal side. Three days after this the hardness of the globe was less, and he distinguished a finger at ten inches distance. January 20, 1860, he read No. 15; the globe had a natural tension. One week after this date he read No. 8, with ease, and spelled No. 6 with some hesitation. February 3, he read No. 4.

Case 2.—*Iridectomy in Irodo-choroiditis.*—Eliza H., æt. 35, was taken into the Royal London Ophthalmic Hospital, May 1, 1860, on account of irido-choroidal inflammation of the right eye, of four months' duration; the globe was hard, the sclerotic congested, and the conjunctiva slightly chemosed. The pupil was small, irregular, everywhere fixed to the lens, and obstructed by a greyish membrane. Quantitative perception of light alone was present. I performed an iridectomy at the temporal side, the same day. 8th. The conjunctival chemosis had disappeared, and the sclerotic congestion was much less. 15th. The tension of the globe had become natural, and No. 16 was read. June 13. No. 10 could be read. 20th. The optic nerve-entrance, which had been previously hidden by the cloudy state of the vitreous humor, could be seen. August 10. The external congestion of the eye-ball had disappeared, and the general aspect of the eye was much improved. No. 6 read with ease. February 15, 1861. The eye continued well. The inflammation has never recurred since the operation.

Case 3.—*Iridectomy in Chronic Irido-choroiditis.*—Clara H., æt. 16, came under my care at the Royal London Ophthalmic Hospital February 7, 1860, suffering with irido-choroiditis and keratitis of both eyes; it was the sixth attack, the first having occurred when she was two years old. The surfaces of the cornea were slightly uneven, and sprinkled with faint nebulæ. The ciliary region was congested, and in each eye the periphery of the cornea was vascular. Both pupils were small and irregular; the right was completely adherent to the lens, but in the left there was a small free part of the border, upwards and towards the temporal side, which was dilated to a very slight extent, about one-sixth of a line, by atropine, and both were partially blocked with very thin adventitious membranes. The vision of the right was much more impaired than that of the left eye; the right could read No. 18 "Test Type," the left No. 12, easily, and No. 10 slowly and with hesitation. February 28. An iridectomy was done, at the temporal side, in each eye. March 2. She was made an out-patient, no inflammation had occurred; there was merely a slight redness immediately around the wounds. Vision continued as before the operation. 27th. The congestion had disappeared; with the left eye No. 4 was read, and with the right No. 18. June 19. The general appearance of the eyes much improved since the last date; the left read No. 2, and the right No. 18; the sight of this continued as before.

The ultimate issue of cases of this kind, under the ordinary recognized mode of treatment, is known to be unfavorable. Each fresh inflammatory attack leaves the eye more injured than before, until sight is destroyed. The treatment by mercury, iodide of potassium, by local abstraction of blood, and counter-irritation has, without doubt, a certain value whilst inflammation is present; but in spite of it, relapses often happen, and it does not prevent subsequent attacks. Often cases are first seen when the pupil is already closed by organized inflammatory membrane so that the question is not—whether an artificial pupil is necessary, but when, at what time, is this best made? It will commonly be replied—to operate on an inflamed eye must aggravate and increase the already existing inflammation, and make matters worse than before; it is therefore better to wait for the complete subsidence of vascular excitement, before undertaking any operation. Now, although it must be conceded that this a sound opinion when it concerns some of the old methods of forming an artificial pupil, it is undoubtedly an erroneous one respecting the action of iridectomy, for experience daily shows that this operation may not only be performed in chronic-iritis and irido-choroiditis, whilst excitement is present, with perfect impunity, but generally with great. benefit. It at once checks the inflammatory process, establishes a sufficient pupil, and in a large proportion of cases ensures freedom from future attacks. Thus it does all that the most judicious medical treatment can effect, and much more. Whilst advocating the snperior practice of iridectomy in these diseases, I must add that I do not mean to inculcate the rejection of medical treatment, but I regard this, in many cases and in certain stages, as an auxiliary measure, rather than as one of primary importance.

The value of the operation in cases where perforation of the cornea by deep and extensive ulceration is imminent, is well showu in the next two cases; whilst the third is a very remarkable example of its beneficial action where perforation had taken place, and the formation of a corneal fistula threatened the complete loss of the eye. Iridectomy at once placed the inflamed structure in a state of complete repose, and afforded an opportunity for repair, whilst at the same time it provided a good artificial pupil, which would be required for the restoration of vision, in consequence of the closure of the natural one, or its concealment by the necessary corneal opacity.

Case 4. *Acute Inflammation of the Cornea and Iris caused by a Corrosive Fluid. Iridectomy.*—John D., æt. 49, employed at the gas works, was splashed in the right eye by some ammoniacal liquor. He applied at the Royal London Ophthalmic Hospital September 4th, a few days after the accident, with acute inflammation, and great irritability of the eye. The cornea was opaque; these were two small, circumscribed, dot-like abscesses amongst its layers, and its surface was excoriated and uneven. He was wholly unable to recognize any objects, and was suffering intense pain. October 12th. The irritability of the eye had increased. The cornea was extensively ulcerated and threatened to give way. November 2nd. The two small, dot-like abscesses had coalesced, and a large onyx was present. The lower part of the anterior chamber was filled with yellowish lymph. He was much worn by pain, and had slept but little for many nights. Iridectomy was recommended, but declined. November 20th. His condition was nearly the same, but he was willing to undergo the operation. I therefore made a large iridectomy at the nasal side of the cornea where there was a small, even, and less opaque portion. 23d. Great improvement had already occurred. The irritability and congestion of the eye had greatly diminished. He said, "I have not been so easy for two months; I now sleep well." 27th. The improvement continued. 39th. The cornea was rapidly clearing, the ulcer cicatrizing, he had a good pupil, and already a good reeognition of large objec s.

Case 5. — *Keratisis. Extensive Onyx. Iritis with Closed Pupil. Iridectomy.*—Daniel D., æt. 40, who had been nearly starved during the severe frost, was taken into the Royal London Ophthalmic Hospital with threatening sloughing of the cornea, an extensive central onyx and hypopion. The pupil could be dilated by atropine; its exact condition was masked by the opacity of the cornea. I made a large iridectomy upwards and outwards. This was immediately followed by improvement; the hypopion soon disappeared, the cornea was saved from sloughing, and the onyx cicatrized; six weeks afterwards the cornea had become quite transparent, except at its centre, where the onyx had left a sharply defined white scar, concealing the area of the natural pupil, which was occupied by a pigmented, adventitous membrane. The artificial pupil was quite clear, and the poor fellow had excellent sight.

Case 6.—*Perforating Ulcer of the Cornea, Fistula with incontinence of the aqueous Humor. Iridectomy.*—A nearly starved, worn out, old farm laborer, with shrivelled skin and cold blue hands, was sent to me December 8th, 1860, at the Royal London Ophthalmic Hospital. Five weeks previously, a deep central ulcer had formed on the corner of the right eye, which was perforated by it a fortnight afterwards. I found an aperture, about half a line in diameter, in the very centre of the cornea, imperfectly plugged by a bead of protruding iris, and giving constant escape to the aqueous humor. There was not the smallest anterior chamber, but the iris was directly applied to the back of the cornea. The globe was very soft. There was only a quantitative perception of light, and he suffered constant aching pain. A large iridectomy was made at the temporal side of the cornea. It required delicate manœuvering to guide the lance knife between the cornea and iris, without wounding the latter, but this was safely accomplished. Three days afterwards the condition of the eye had much improved. There was a good anterior chamber. The protruding bead of iris was shrinking, and there was a good pupil. January 1st, he returned to the country. The tension of the globe was natural. The opacity of the cornea was fast disappearing, and he could distinguish between my fingers when spread and when closed, at a distance of nine inches.

In this remarkable case, the free drainage through the corneal incision diverted the aqueous humor during a few hours from the fistula, and gave this an opportunity of closing.—*Journal of Ophthalmic Med. & Surgery.*

Treatment of Ingrowing Toe-Nail by Perchloride of Iron.

This painful affection, which has seemed to obstinately resist all treatment for its radical cure short of excision, is said to be permanently relieved by the application of perchloride of iron. The suggestion is from M. Wahn, Physician of the Military Hospital at Nice, and is published in the *Gazette des Hopitande.* M. Wahn gives the following account of his experience in the treatment of his own case:

"I was struck with the idea that, if I could dry up or even *tan* the diseased surface, so that the ulcer might be converted into a firm surface, capable of resisting the cutting action of the edge of the nail, I might obtain a complete cicatrization, and consequently a cure. Running over in my mind the most energetic tanning substances, I decided on employing the *perchlorure de fer.* I obtainad some in a powdered form, and insinuated it as deeply as possible between the free edge of the nail and the ulcer. I felt almost immediately a moderate sensation of pain, accompanied by a feeling of constriction and a strong, burning sensation. A quarter of an hour after I attempted to walk, and, to my great satisfaction, I found I could bear my weight on my foot throughout its entire length without the least pain—a thing which I had not done before for many months. The following day I carefully examined the diseased parts, and I found them mummified and as hard as wood. I applied a fresh quantity of perchloride de fer, which I allowed to remain for a quarter of an hour; but I have reason to believe this application was useless, as the mummification was complete by the first process. I continued to walk without the least thought of *ongle encarne,* and about three weeks after was able, by means of a pediluvium, to remove the hardened layer of skin, under which I found a tissue of new formation, which perfectly resisted the pressure of the edge of the nail. Shortly after the whole had returned to its normal condition, and, since, more than two years have passed without a return of the disorder."

Infantile Vomiting.

IN the course of lectures by A. Jacobi, upon Dentition and its Derangements, now being published, we find some very interesting remarks upon infantile vomiting. He does not believe that this troublesome symptom in children is often connected with dentition. In regard to its nature, he says: "The nature of the undigested contents of the stomach brought up will frequently explain the cause of vomiting. When milk is vomited, coagulated, immediately after being taken, it shows that either the milk or the stomach contained free acid. It is of some practical importance to know that this occurrence may be usually avoided by adding a small quantity of bicarbonate of soda, besides a little chloride of sodium, to each meal. When the milk is vomited some time after it is taken, in a state of loose coagulation, it proves that the condition and function of the gastric juice are normal; when on the contrary, it comes up again after some time has elapsed, uncoagulated, there is either a want of gastric juice that requires the administration of pepsin, or, if the caseous matter looks like tough mucus, there is evidence that chronic catarrh is present, in which case pepsin is of no use. Vomiting due to the condition of the stomach and the ingested food, is most frequent, and it may be safely stated that such cases depend upon organic disorders of the stomach, when the vomiting occurs while the stomach is filled. Cases in which vomiting occurs with an empty stomach will prove obstinate, as they depend on some anomaly of the nervous centres; thus, for instance, in cerebral tumours, exudative processes, or in vomiting occurring in the first stages of many diseases attended with fever." He makes an interesting remark in regard to vomiting in tubercular meningitis, viz.: "The difference found by me hitherto, and which I hope to verify by further experience, is this—that vomiting is a regular symptom in tubercular meningitis of the base of the brain, while it is the rarer the less the basis is affected."

Prof. Jacobi makes some very interesting remarks upon that ever important, but much talked about subject—artificial diet for infants. We quote the following:

"Some hints on the use of milk, on which infants ought to be fed almost exclusively, in regard to the affection alluded to, may be of some practical importance, and deemed worthy of your notice. I shall be brief in adding them. Always use cow's milk as fresh as you can. You cannot always expect milk, even in the ice-box, to keep from one morning to the next. Boil the milk, to postpone the transformation of the sugar into acid. Diminish the amount of sugar to be added to cow's milk in acid secretion of the stomach. Where there is the least suspicion of acidity, add a small quantity of bicarbonate of soda. Where there is the least suspicion of acid secretion in the stomach, add some vegetable slime (barley, oatmeal, arrowroot, according to circumstances), to prevent rapid and hard coagulation. The regular addition of chloride of sodium to every meal will also add to the digestibility of the food. Never use swill-milk; never give milk undiluted; never consider milk as a beverage, but always as food; give water when infants are thirsty, and never give food while they are still well oftener than once in two hours, in the first month of life; never oftener than once in three hours, after the first or second month. Make the intervals longer in case of catarrh in the stomach, which diminishes the digestive power. Never regard the violent screaming of an infant affected with gastric catarrh as indicating hunger; they will sometimes appear to be voracious, mistaking the disagreeable feeling of the peripheric ends of their vagus nerve for the sensation of hunger. Keep the affected organs of digestion from over exertion as you would a sore limb."—*Medical and Surgical Reporter.*

Hypophosphites in the Treatment of Phthisis.

JAMES RISDON BENNETT, M. D., makes the following remarks on the above subject, in the *American Medical Times:*

The confidence which Dr. Churchill claims for these salts is founded upon his theory, that tubercular diseases have their origin in a diminution of the oxidizable phosphorus contained in the body, the deficiency of which he attempts to supply by the administration of the hypophosphites of lime and soda, which he says he has found by experiment to be the best adapted for insuring the absorption and assimilation of the deficient element, while the hyperphosphite of lime, by supplying another element assumed to be deficient in the tubercular constitution, he thinks specially adapted to certain cases. Neither the theory nor practice is confirmed by other pathologists and therapeutists. According to Becquerel and Rodier, the phosphate of lime is present in an increased quantity in the blood of phthisis, and Beneke affirms, that in all cases of tuberculosis with emaciation, the earthy phosphates in the urine are increased; neither have we sufficient therapeutical evidence to commend these salts to that degree of confidence claimed by Dr. Churchill. Dr. Bennett confines his remarks to cases treated by himself, having no reference to the experience of others. Of the large number of cases in which the trial was made, he reports twenty in the *Medical Times and Gazette*, in eleven of which the disease steadily advanced while under treatment, giving no evidence at all of improvement. Of the remaining nine, four only manifested any decided improvement, of the permanency of which there were no proofs in any one instance. In the cases reported, the hypophosphate of soda was the salt used, though the salt of lime he has employed in many instances, with results not differing materially from those of the soda salt. Of the two, however, he is disposed to prefer that of lime. The only special influence (if any) exerted on any one function of the body seemed to be on the digestive functions, the tongue, in many instances, improving in appearance, and the appetite increasing; but he questions whether this has not been as much from the abstinence from any direct influence executed by the phosphatic salt; or whether a little lime water or citrate of magnesia would not have had the same effect; or, assuming that the new remedy has been useful in allaying irritability of the stomach, and improving digestion—effects resulting from small doses of alkalies—whether this may not be due to the base, rather than the acid with which it is combined. In many instances of gastric derangement, interfering with all treatment, and with the taking of the most simple food, emaciation and debility increasing, he has found the saccharated solution of lime, according to a formula recommended by Dr. Clelland in the *Edinburgh Medical Journal* for August, 1859, in doses of from twenty to thirty minims three times a day, prove of signal service, acting not only as an antacid but as a tonic. Independent of the action of these salts on the stomach, and intestinal and pulmonary mucons membrane, Dr. B. sees no evidence of any specific anti-tubercular effects. A trial, however, may elucidate the benefit that occurs, in many instances, from a temporary or entire abandonment of other remedies, and the adherence to regulated diet, and the hygienic means, of such paramount importance in all cases of tubercular disease. It may be added, that the cases were taken without any selection, except that such as presented urgent special symptoms requiring immediate attention were not considered eligible. The remedy was given three times a day, generally in an infusion of quassia, accompanied by a meat diet and porter.

COCCYGECTOMY.—Professor Simpson brought under notice of the Edinburgh Obstetrical Society, a patient in whom he had cut out a portion of the coccyx, and had thus cured her of a severe degree of coccyodynia. Dr. Simpson related at full length, and had asked the patient to show herself at the Society, in order that the members might satisfy themselves as to the degree of relief that had been obtained. The patient, on being interrogated by the Chairman, stated that she had suffered for many months from excruciating pains in the region of the coccyx, which never entirely left her, but were least distressing when she was standing or walking, whilst in other positions it was very intense. She could not sit on a chair with any degree of comfort, and only by resting on one hip at time. To lie on her back in bed was utterly impossible. She attributed the occurrence of the disease to exposure to cold whilst sitting on damp grass, watching clothes drying. She had got various remedies with a view to her relief; but the only lasting relief she had ever obtained was by means of an operation performed by Dr. Alexander Simpson (isolation of the coccyx, as that gentleman explained), which had left her free from pain for about a fortnight. The pain having returned, however, and become of astounding character, she was sent into the hospital, to have a piece of the bone removed; and, since the operation had been performed, she had found herself perfectly well, and was now able to do all her ordinary work as a laundress, for which she had been utterly incapacitated. So far as the coccyx was concerned, she felt no difference between its present condition and that in which it had been in her earlier years. The Chairman thought the woman's statements very satisfactory. Dr. Simpson begged to add, in reference to the disease, that he thought different sets of muscles were involved in different cases; and, to produce a cure, it was in most cases necessary only to divide the muscles affected, or their tendons. He had only seen this and one other case where isolation of of the coccyx from the muscular and tendinous attachments had failed in effecting a cure. In some cases the operations required to be repeated, in consequence, probably, of some of the fibres of the implicated muscles not having been cut through. He had lately had under his care a lady from America, in whom a first operation afforded partial, and a complete relief.—*Edinburgh Medical Journal.*

TREATMENT OF BUBO BY INJECTION.—Dr. Pizzorno strongly recommends the following mode of treating bubo, which he has pursued in more than 500 cases with great advantage and no ill effects: When suppuration cannot be prevented, the bubo should be opened sufficiently only to discharge the pus and to admit the point of a small glass syringe. A solution of corrosive sublimate (two grains to three ounces) is then to be thrown in with force two or three times in succession, and after the sac of the abscess is thus well washed out, a little of the solution is still to be left within it, the aperture being then covered with some shreds of lint and compresses moistened in the solution. Pressure is also to be made with a long and broad bandage. Sometimes at the end of the first twenty-four hours suppuration has ceased, and the external application alone has to be continued. When this is not the injection has to be repeated every twenty-four hours until the suppuration ceases. Upon an average, about seventeen days are required to obtain a complete cure of the bubo. In indolent bubo, when frictions with extract of cicuta and blue ointment, a few doses of calomel, and compression by bandages do not succeed, the author applies a blister and dresses it with a weak solution of corrosive sublimate.—*Med. Times and Gazette*, from *Omodei's Annali.*

Opium and Quinia.

THE antagonistic effects of these two remedies have recently been made a subject for investigation by Dr. Nivison, of Schuyler county, New York, who, instead of endorsing the rule laid down by Dr. Gubler, that they ought not to be administered simultaneously," claims that each only neutralizes the bad effects of the other, and that the happiest therapeutic result is often derived from their combined action. In support of this, he reviews the separate action of each, premising that no two articles enter more largely into use than the preparations of bark and opium, some of their properties being determined with a certainty that amounts to absolute demonstration, and that both have a powerful affinity for the nervous system, each impressing it in a manner peculiar to itself.

Experiments have proved that quinia given in health augments the amount of phosphates, and in disease prevents the destruction of nerve tissue. Upon the circulatory system its effects are to give contractile power to the capillaries, giving us control of almost all forms of venous and capillary congestion; to approximate the frequency of the pulsations to the healthy standard; and upon the blood, its influence is not only on the phosphates, but it diminishes the amount of uric acid, and defibrinates the fluid, which may throw some light on its action in overcoming congestion, and subduing inflammation. The action of opium is to equalize the circulation; it stimulates the nutritive or reparative process, as in the healing of old ulcers, &c.; it retards the too rapid metamorphosis of the tissues, indicating its employment in exhausting fevers, wasting discharges, &c.; not to mention its more familiar effects in removing pain, procuring sleep, &c. Although there are many exceptions to the uniform action of each of these remedies when administered singly, he claims that the number of exceptional cases will be greatly reduced when they are given simultaneously. Many acute inflammatory cases will promptly yield to the influence of full doses of opium, where these doses cannot be given without the risk of so far paralysing the nervous energies as to induce fatal congestion, which quinia will overcome by its contractile power over the capillaries. Quinia counteracts the tendency of opium to reduce the respiratory action, and also obviates the unpleasant after-effects which frequently follow full doses of opium. It assists opium in cases of extreme exhaustion from protracted hemorrhages, &c., by preventing undue narcotism, and by maintaining the reaction without those frequent repetitions of opium otherwise necessary. It also overcomes a large proportion of idiosyncrasies. In many diseases the dangerous congestion of some internal organ requires the contractile action of quinia on the capillaries of the congested parts; but upon trial, we sometimes find we have imparted a peculiar action to the general circulation, aggravating rather than relieving the congestions. A sufficient amount of opium controls this excitement, and diverts the circulation to the surface, thus assisting the legitimate action of the quinia. Other morbid conditions are mentioned, in which experience has demonstrated that the beneficial effects of either remedy are more readily obtained by administering the two in combination, while the unpleasant effects of either are in a like manner obviated.—*AmericanJournal of Medical Sciences.*

THERE were two amputations at the hip-joint at Sudley's Church, during the battle of Bull Run, both of which proved fatal.

Obstetric Aphorisms.

DR. HAMILTON publishes in the *Edinburgh Medical and Surgical Journal* remarks on different subjects connected with Midwifery. The method of restraining hemorrhage after delivery is certainly simple and always practicable.

"In a former paper I mentioned a method I had for many years pursued of restraining post-partum hemorrhage, viz., the introduction into the vagina of the right hand, seizing hold with this of the neck or part of the body of the uterus, compressing it at the same time with the left hand, through the parietes of the abdomen. In my later experience, I have found that usually the most effectual mode of restraining the hemorrhage in such instances is to pass the fingers of the right hand *under* the uterus, which the relaxed state of the parts generally allows being easily done, and then firmly to compress the walls of the uterus between the two hands. This method, in every case where I have had to use it—and they have been very numerous and sometimes very severe—has proved completely successful; and I often think with pleasure, while treating this alarming affection, of the confidence which a resort to the simple expedient mentioned now gives me, compared with the dread and uncertainty with which I encountered it at the early part of my professional experience. Since I have adopted this practice, I have seen several fatal cases from uterine hemorrhage, but in these the patient sank from the previous great loss of blood. In all of them an entire cessation of the flooding took place almost immediately upon the application of the pressure as described. As the great object in practice must be instantly and effectually to stop the oozing away of the vital fluid, and as the loss in critical cases of even a few additional ounces may be fatal, I never hesitate, after the instant exhibition of a stimulant, to clear out from the interior of the uterus the clots which usually are found there. I then, without a moment's delay, use the compression as described, not neglecting, at the same time, the simultaneous sudden application to the abdomen of cold wet cloths, which seem to act beneficially, both by rousing the patient when in a sinking state, and by causing the uterus to contract. Clearing out the clots from the interior of the uterus appears to me quite essential, as a preliminary, to successful treatment. We must get at once to the root of the evil. To leave the clots in the uterus to act as a plug, as I have seen recommended, seems to me about as dangerous a practice as I can well conceive of. As long as they remain we can never be safe, for though they are an effect at first, they seem to act as a cause of the flooding afterwards, by interfering with the uterine contraction. Every one accustomed to obstetrical practice must have noticed that the removal of such clots is very commonly followed by more or less of contraction in this organ. Probably this may arise partly from the stimulus conveyed to its interior when the hand is introduced; but in either case it is beneficial. In severe attacks the hand should not only be introduced into the vagina, and pressure applied, but it should be kept there until the tendency to flooding ceases, which sometimes may be little short of an hour. By introducing his finger occasionally into the uterus, the surgeon can easily and with certainty tell how matters are proceeding. If there is any insidious oozing, he can shift or increase the pressure until he finds it commanded; and when there is none, he generally has the satisfaction of being able to give an assurance that syncope or other alarming symptoms will soon abate. Occasionally the tendency to syncope after labor seems to depend mostly upon nervous susceptibility, for there may be little or no flooding. I have seen it continue for hours when I have assured myself that not the slightest escape of blood was occurring. In dealing with such a formidable antagonist, however, as flooding, it is well to take nothing for granted, and I therefore always satisfy myself, from time to time, even in these instances, as to its absence."

On the Use of Forceps in Tedious Labors.

UNDER this head Dr. Hamilton advocates a much more frequent use of the forceps than we consider can ever be necessary. We give, however, the results of his practice, which certainly are more favorable than any we have ever before met with. At the same time, we should have preferred being informed of the subsequent history of the mothers, as regards injury of the urinary organs, or of the vagina. Dr. Hamilton observes:

"It is very gratifying to notice that on this subject of late years a very considerable change has taken place in the opinions and practice of the leading members of this branch of our profession. I have long held that a more frequent use of the forceps than has been usual in tedious labors is called for, in order that the maximum of success should be attained in obstetric practice; and I attempted to support my views on this point in papers published in the *Brit. and For. Med.-Chir. Review*, for April, 1853, and in the *Edin Monthly Jour. of Med*, for May, 1855. In the former of these I stated, that by using the forceps on an average in between every seventh and eighth case, a ratio of mortality to the child had been attained of 1 in 317; and in the latter I stated that I had then delivered in succession 416 cases, in all of which the child was born alive. At that time the numbers were still being added to; and I now think it interesting, as connected with this practice to state that the successful deliveries continued to go on, until the numbers attained were 731 children delivered successively, not one of which was still-born. I must repeat here, what I formerly explained, that these series includes, first, only those labors that were under my own care from the commencement; and, second, that children were not viable, or were dead when I took charge of the cases are excluded. As far as I am aware, when I look at the case with which my experience tells me the forceps can usually be applied, when resorted to in good time, I cannot but think that the prejudice against their more frequent use has been altogether without proper foundation. I explained my views on the management of tedious labors so fully in the papers referred to, that I need not repeat them here. I may, however, say, that all the experience I have since had confirms me in the soundness of the position I then maintained, that it is not generally in the early portion of tedious labors that danger is to be apprehended, and that the labor may go on frequently even for days without anything more serious than some inconvenience to the mother. I think that during this stage, and until the head has fairly entered the pelvis, meddlesome interference in urging on the labor is for the most part uncalled for and pernicious, and that usually, with the exception of rupturing the membranes, little more is required than the exercise of patience. When, however, the os uteri has become dilated, and the head has entered the pelvis, so that an ear can be easily felt, I hold that the danger to the child becomes imminent if it remains undelivered more than two hours, especially where the pains are smart, or the compression is considerable. When mother and child have been much exhausted by a protracted or very severe labor, my rule is, when an ear comes within reach, not to wait more than a quarter or half an hour, or even, if the case is urgent, to deliver immediately. I always feel anxious in such instances as I have last mentioned to get quickly over the latter half of labor; for though no serious harm may yet have happened to mother or child, there can be no question that, to the latter at least, the delay would be fatal. If, therefore, nature is getting over this portion of the labor quickly, I am content; if not, I use the forceps, and deliver.

"Acting upon these principles, I have stated that I have found it necessary to use the forceps on an average rather more than once in every eight deliveries. Whether a less frequent instrumental interference might not be be equally, or even more, successful, I cannot say; but I can say, at any rate, that by this means 731 children have been successively brought into the world alive, and that I am not aware of any other mode of practice that has given a result at all approaching to this. Practitioners inclined to trust more than I am to nature's unaided efforts in child-bearing, ought, I submit, after what has been stated, to feel anything but satisfied if they find, as has hitherto been the case, that the children born under their system suffer a ratio of mortality of 1 in 20 or 30. In many other instances in our profession statistics are fallacious; here, at least as far as the general practitioner is concerned, they are, I think, almost unexceptionable; and I would therefore say that, either a lower rate of mortality must be attained, or the non-interference system ought to be abandoned as a wanton sacrifice of human life.—*Edinburgh Medical Journal.*

The Gorilla and Dr. Gray.

PROFESSOR OWEN has obliged the Zoological Section of the British Association, by a paper minutely describing the characteristics of some of the more important anthropoid apes which have been purchased for the National Collection from the stores of M. du Chaillu, Nothing has more powerfully aided the acceptance of M. du Chaillu's statements by the public, than the endorsement of his scientific observations by Professor Owen. This distinguished naturalist has carefully examined these specimens on behalf of the trustees of the Museum, of whom he is the official adviser; and he has expressed the opinion that the local details incidently, described in all respects tally with what might be deduced from the structural peculiarities of the specimens brought to this country. He has noted also many circumstances confirmatory of some of M. du Chaillu's statements, which have been roughly discredited by Dr. Gray. Thus of the "new specimen," which Dr. Gray declared not to be new, since one such was already in the National Collection, it was immediately ascertained that that particular piece was purchased from a dealer who had, it direct from M. du Chaillu. Then as to the general character of novelty belonging to the specimens offered for sale o the British Museum, it is observed that about two score are either new to science, or at least new to our National Collection; and since the cases of the Museum are replenished by all the dealers in all parts of the world,—Berlin, Paris, Africa, and elsewhere,—it is a fair presumption that the man who has brought this rich mass of novelties, which no one else ever procured, has gone to the trouble of obtaining them himself, and in the manner which he minutely and picturesquely describes. The last objection raised by Dr. Gray is childishly trivial. Professor Owen, having examined the skin of the great gorilla, pronounces that the position of the bullet-holes corresponds with the account in M. du Chaillu's book of the manner in which he shot the creature. Dr. Gray, who has a theory to support that M. du Chaillu probably never shot it at all, protests that these particular holes are rents, and that others which he points out indicate the track of the bullet. Well, this is a question of interpretation, and we certainly concur in the general opinion which gives to Professor Owen the credit of knowing a bullet-hole in a monkey when he sees it. Given du Chaillu, who protests that he shot the monkey, and who certainly brought it over, and if he did not shoot it, has *burked* the man who did; and given Owen, on the same side, who endorses from his own observation of the skin the statement which M. du Chaillu makes; and given, on the other side, Dr. Gray, who protests that, viewed through his spectacles, this hole is due to some other cause,—we incline to think that the balance of evidence is strongly against Dr. Gray, and that he weakens the position of zoological science by supporting accusations so insulting, upon testimony so feeble.—*London Lancet.*

QUACKS A HUNDRED YEARS AGO.—If our forefathers a hundred years ago could not boast of their mesmeric influences, or of table turning, or of spirit-rapping, they were the victims of a marvellous list of quackeries of other descriptions, which were, perhaps, more injurious in their effects. It was literally the age of quack medicines, and every possible disease was fitted with its nostrum, all duly qualified by his Majesty's letters patent. There were "The Original Balsam of Health," otherwise called "The Balsam of Life," which is described as "the most admirable vulnerary in nature;" the "Golden Nervous Cordial, or Paralytic Drops," which was "the greatest preservative and restorer of health ever yet published," and had been "sent many years ago by her Catholic Majesty to King James the First's consort;" the "Famous Sugar-plums for Worms;" the "Grand Elixir of Ease," which was a certain cure for the colic; and "The Much-famed Hypo Drops," which "infallibly cure melancholy in men, or vapors in women." One "Doctor Toscano" declares himself able to find out and cure all diseases to which humanity is liable, adding, in conclusion, "I will forfeit one hundred guineas if any body can prove to the contrary." Some of these medicines are put forward under the name of the celebrated Doctor John Hill, the great medical and literary quack of the age; such as "Essence of Water Dock," a safe remedy for scurvy; and the "Elixir of Baridana," which was infallible against gout and rheumatism. Those who needed the latter were encouraged by the information added to the advertisement, that "The Baridana (burdock) is a common innocent British plant." Dr. Hill's "elixir" met with a rival in a medicine against the same diseases, by one Dr. Colley, who announced as "an effectual remedy," his "Antiarthritick Wine," supposing, perhaps, that the very name of wine was enough to cure a gouty patient. But all these inventions are thrown into the shade by the "Medicinal Arabian Quilt," wherein, we are told, "is infused a salutary composition," consisting chiefly of "Eastern vegetables," and by "wrapping up in this quilt," sufferers under all sorts of diseases were to find quick relief. We learn from the same advertisement, that "the author also has invented a medicinal paper cap, for the constant wear of those who are vaporous, or subject to catch cold;" and of this it is further stated, "likewise it refreshes the memory of the studious, particularly those who apply constantly to their pen, and is so curiously contrived that gentlemen (*sic*) may constantly wear them under their wigs, or even ladies under their caps."—*London Review.*

Communications.

Tracheotomy.

BY JOS. M. FREY, M. D.

EDITOR PACIFIC MEDICAL AND SURGICAL JOURNAL:—*Dear Sir:*—I send you the notes of this case on account of its fortunate termination, and because in performing the operation, I adopted a slight variation of the usual method, that may be found useful in preventing the hemorrhage which is often embarrassing, and not unfrequently fatal.

Dec. 28, 1861—Called at midnight to see John Q., aged about four. Found patient in a paroxysm of croup; false membrane in patches on the tonsils, which were much enlarged; no cough; chest resonant; lung sounds healthy; pulse very quick and hard; respiration very difficult. Gave zinci sulphas, scruple i. The child vomited freely, throwing up a great deal of false membrane; was greatly relieved, and fell asleep, breathing almost as easily as natural, and the pulse soft and not more than eighty in a minute. At eight, A. M., saw patient sitting up at the breakfast-table, with good pulse; respiration natural, but with a croupy cough; fauces very red; but no false membrane is sight. Prescribed Tinct. Aconite, gtt. viij; syr. Ipecuæ, oz. ss; aq. pura, oz. iss. Take a teaspoonful every half-hour whilst the cough is troublesome.

Eleven, A. M., three hours later, a messenger came for me, saying that the patient was dying. I saw him in a few minutes, the house being near my office, and found him in a very alarming state. Expiration seemed comparatively easy, but inspiration was almost impossible, and accompanied by a loud whistling, which proved that the larynx was nearly occluded. I had with me a strong soln. arg. nit., with which I sponged the fauces, bringing on a fit of coughing, which expelled some shreds of false membrane of remarkable toughness, and seemed for a moment to render respiration easier. I examined the chest carefully, and could find no evidence of any trouble in the lungs, and I made up my mind that the only hope for the child was to be found in the immediate performance of the operation of tracheotomy. As I was on my way to my office, I met the father of the child, to whom I explained the nature of the operation, and requested him to go for some medical gentleman who could assist me in its performance. On my return, I found Dr. Simmons at the house, and the child to all appearance fast expiring. The attendants had stripped him naked, put him in a hot bath, and covered his legs and abdomen with mustard. The pulse could not be felt at the wrist, and respiration had ceased entirely. The mother said that as soon as I left, the child "had a fit, turned black in the face, and ceased to breathe." A male friend took the child on his lap, with a sheet wrapped round him in such a manner that he could not struggle, and with the assistance of Dr. Simmons, I commenced the operation.

The child was very fat, and the thyroid gland was very large, and extended to within half an inch of the sternum. I made an incision of about an inch long, from the top of the sternum upwards, cutting carefully until I exposed the thyroid gland, the lower edge of which I pushed up out of the way. I then used the scalpel no more, but pushed in the point of a pair of scissors a short distance, and then opened them until I had torn open the tissues to an extent corresponding to the first incision, and thus I tore my way down to the trachea without losing a thimbleful of blood. I found the trachea about one inch and a quarter deep, and very small, and I tried ineffectually to open it with a knife, belonging to a case Dr. Simmons brought with him, which seemed well adapted for that purpose. I fixed the larynx with my forefinger, and pressed on it a pointed bistoury, which I introduced under one of the rings, and divided that one and the next one above it. I stretched the wound open with a bivalve speculum, and expected the usual rush of air, blood, and mucous, which usually takes place, but the lungs seemed quite quiescent, and there was no effort, either at expiration or inspiration. I introduced a small-sized tube, and blew into it with a catheter, and provoked an inspiration and a short cough. After several inspirations, the pulse returned, and the lips lost their purple hue; the child said "water" feebly, but not so as to be understood. I gave it a teaspoonful of water, some of which passed into the larynx, as the effect to swallow seemed to produce an effort at inspiration; at the same time the cough which ensued displaced the tube, and before I could replace it, a considerable quantity of air escaped into the cellular tissue, and the face and neck, especially on the left side became emphysematous, to a degree which was frightful to the friends, but which added little to the danger of the operation. On replacing the tube, the child breathed easily, and soon fell asleep; pulse 100.

Left Ri., Tinct. Aconite, gtt, v; Potass, Chlo., drachm i; Syr. G. Acac., oz. ss; Aq. Menth Pip., oz., iss. Take a teaspoonful every two hours.

The operation occupied about fifteen or twenty minutes, and in half an hour after I left, the child was asleep and comfortable. At two, P. M., still asleep; had been several times awake, and had taken a little water, and one dose of mixture, and fallen asleep again. Pulse 110; skin soft moist. Respiration natural, altogether by the tube; cough not frequent; some mucus expelled by the tube; removed the inner tube and cleaned it. Re-introduced it, and left a piece of gum catheter which the attendants could introduce into the tube when it seemed obstructed and remove mucus, &c., by suction, as they seemed unwilling to remove the inner tube, and clean it as I did. Nine, P. M., still comfortable, had taken some beef tea and some water. Eight A. M., the next morning, had passed a tolerably good night; had some fever; had frightful dreams whenever he fell asleep. The mother held him in her lap all night, so as to quiet him, when he awoke terrified by a dream of falling into the water. (This was after the first flood.) The emphysema was somewhat less, but still enough left to be alarming, the left eye being entirely closed, and the neck very much swollen. Bowels open this morning, and the passage was healthy. From this time the child steadily improved, and on the morning of the fourth day, after closing the aperture of the tube, and finding that the child breathed easily through the mouth, I removed it, and closed the wound, by covering it with a piece of lint, smeared with ung. citacei, and in a week more it had healed so that it needed no more dressing. The child is now as well as ever.

Sacramento, Jan. 14, 1862.

Reviews.

THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES. By Freeman J. Bumstead, M. D. Blanchard & Lea, Philadelphia, 1861. Sold by Roman & Co., Montgomery street, San Francisco.

IN our last number we reviewed that portion of Professor Bumstead's work which related more particularly to gonorrhœa. We now propose to present to our readers a short notice of the remaining portion of the work, or that on the pathology and treatment of syphilis.

In performing this task, we shall have to do little more than to reproduce the leading facts and opinions contained in the work itself, as in most instances this portion of the treatise is far in advance of that which we formerly reviewed, and contains, in fact, an epitome of the opinions and practice of the best and most recent authors on the subject, the whole arranged and written in a manner well calculated to disseminate amongst the profession, a knowledge of the radical changes that have been introduced, both in the pathology and treatment of syphilis, during the last ten years. That an important and radical change should have taken place during so short a time in our views, on a disease which had attracted the attention for centuries of the most distinguished names that have adorned the history of medicine, is a fact which, whilst it evidently points to the onward march of our science, yet at the same time is calculated to keep alive a rational scepticism in regard to what we have been accustomed to consider as amongst the most fundamental and best established bases of our knowledge. But few amongst those who have not kept posted up as to the progress that has been made on the subject of syphilis, will be prepared to admit that the great doctrine of inoculation, which Ricord introduced as the test of the syphilitic sore capable of affecting the system, is now looked upon as furnishing almost a convincing proof of the non-infecting character of the disease—that the pus of a chancre which was considered the sole element by which the disease could be propogated, is now regarded but as one of the many means by which infection can be produced, or that by far the larger proportion of contagious sores met with on the genital organs, are incapable of giving rise to constitutional or secondary symptoms, and require nothing more than local treatment. Yet such has been the revolution that has taken place during the last few years, so that doctrines which but a short time since would have been pronounced heretical, are now generally admitted as truths, at least amongst the rising physicians and surgeons in England, France, and Germany, and, as appears from Professor Bumpstead's work, on this continent also. Vidal, Malgaigne, and some of those we have been accustomed to honor, apparently find it difficult to renounce their old belief, admitting only partially these new doctrines, but still not agreeing amongst themselves as to what is to be received and what rejected. Experience, however, has confirmed the truth of most of the propositions brought forward in the work, and those we have not had an opportunity of verifying are daily receiving support from writers in the medical journals.

According to our established nomenclature, we must regard syphilis as comprehending two distinct forms of disease, both propogated by a virus which always produces an analogous form of sore to that from which it was derived, and either of them incapable, at least as far as we at present know, of having a spontaneous origin. It is only until lately that this distinction between these diseases has been strongly drawn out, the marked differences observed between their primary symptoms and subsequent effects, having been attributed by former authors to peculiarities in the constitution, or some adventitious cause, and not to a radical difference in the poisons from which they have their origin. Up to the present time, no nomenclature has been proposed which sufficiently points out this difference, although it is fully time that it was done; they are still both styled syphilis, one being distinguished as the non-infecting, the other as the infecting form of the disease. The simple, soft non-infecting chancre, for by all these terms it is distinguished, may be called the chancre without syphilis, it is never followed by a constitutional affection, whilst the other is the indurated, the infecting, the real syphilitic chancre, with its inevitable subsequent syphilitic infection of the system.

It is of the utmost importance, both for the welfare of our patients, as well as for our own credit, that we should be able to distinguish between these two forms of syphilis, as the one requires a tedious course of treatment with mercury, and the other generally but a mere local application. After entering fully on the diagnosis of the two diseases, and the different complications that might tend to interfere with it, the more marked distinctions are presented in a tabular form.

DIAGNOSTIC CHARACTERS OF THE SIMPLE AND INFECTING CHANCRES.

THE SIMPLE CHANCRE.	THE INFECTING CHANCRE.
Origin.	*Origin.*
Always derived from a simple chancre, or virulent bubo.	Always derived from an infecting chancre or secondary lesion.
Anatomical characters.	*Anatomical characters.*
Generally multiple, either by the first or by successive inoculation.	Generally single; multiple, if at all, from the first; rarely, if ever, by successive inoculation.
An excavated ulcer, perforating the whole thickness of the skin or mucus membrane.	Frequently a superficial erosion; not involving the whole thickness of the skin or mucous membrane, of a red color and nearly on a level with the surrounding surface. Sometimes an ulcer, when its
Edges abrupt and well-defined, as if cut with a punch, not adhering closely to subjacent tissues.	Edges are sloping, hard, often elevated, and adhere closely to subjacent tissues.
Surface flat but uneven, "worm-eaten," wholly covered with grayish secretion.	Surface hollowed or scooped out, smooth, sometimes grayish at centre.
No induration of base, unless caused by caustic or other irritant, or by simple inflammation; in which case the engorgement is not circumscribed, shades off into surrounding tissues, and is of temporary duration.	Induration firm, cartilaginous, circumscribed, movable upon tissues beneath. Sometimes resembles a layer of parchment lining the sore. Generally persistent for a long period.
Pathological tendencies.	*Pathological tendencies.*
Secretion copious and purulent, inoculable.	Secretion scanty, chiefly serous; inoculable with great difficulty, if at all, upon the patient or upon any person under the syphilitic diathesis.
Slow in healing. Often spreads and takes on phagedenic action.	Less indolent than the chancroid. Phagedena rarely supervenes and is generally limited.
May affect the same person an indefinite number of times.	One attack affords complete or partial protection against a second.
Characteristic gland affection.	*Characteristic gland affection.*
Ganglionic reaction absent in the majority of cases. When present, one gland greatly inflamed and generally suppurates. Pus often inoculable, producing a soft chancre.	All the superficial inguinal ganglia, on one or both sides, enlarged and indurated; distinct from each other, freely movable; painless, and rarely suppurate. Pus never inoculable.
Prognosis.	*Prognosis.*
Always a local affection, and cannot infect the system. "Specific" treatment by mercury and iodine always useless, and, in most cases, injurious.	A constitutional affection. Secondary symptoms, unless prevented or retarded by treatment, declare themselves in about six weeks from the appearance of the sore, and very rarely delay longer than three months.

There is one omission in this portion of the work which may tend to complicate the diagnosis, and which it is well to bear in mind, viz., that a sore situated on the upper and central portion of the glans penis is never indurated. Dr. Lee observes:

> "In one case only is the induration of the primary infecting sore entirely wanting, and that is when it is situated in the upper and central portion of the glans penis. The infecting sore here assumes a peculiar appearance. The surface is red; it yields little secretion; and it looks as though the epithelium had been removed, without exciting any irritation in the structure beneath. The infected part will remain in this condition for days or weeks together without undergoing any alteration, and without presenting the least trace of induration. But although it does not become indurated itself, it may be followed by induration of neighboring parts, which have not themselves been ulcerated."

In fact, the amount of induration around a chancre is generally much greater when the sore is situated in some parts than in others. It is most marked near the glans and the prepuce; whereas, on the glans itself, and on the carunculæ myrtiformis of the vagina, the induration is apt to be very slight, and may be overlooked if particular attention is not given to its detection.

But, fortunately, there are other means to enable us to distinguish between these two diseases, besides the mere character of the sore, and its inoculability. The nature of the glandular affection, or the bubo which is liable to follow each variety of sore, is as characteristic of the two diseases, in fact more so, than the appearances presented by the sore itself, for whilst the simple, soft non-infecting and inoculable chancre gives rise to a bubo, which in suppurating, furnishes a pus capable when inoculated of reproducing a sore analogous to the specific sore from which it had its origin, the almost constant effect of the indurated infecting sore, is to cause an indolent non-suppurating enlargement of the lymphatic glands, which in those rare cases in which suppuration takes place, furnishes pus which, like the pus of the original sore, is not capable when inoculated of giving rise to a specific sore on the subject from whom it was taken. Cases, however, will occasionally be met with, in which the diagnosis is rendered difficult, from accidental complications, from mixture of the two forms of disease, and from other of the thousand causes, which in practice are found to interfere with all attempts at stereotyping even the most simple forms of disease. These complications receive a full notice in the chapter relating to diagnosis, which we think contains all that is at present known on the subject, and this, fortunately, is sufficient to guide to a correct conclusion, in by far the larger number of cases met with.

In the remarks on urethral chancre, we notice an omission which is calculated in some instances to lead into error, or at least to cause needless anxiety. After describing the characters of the discharge, and the induration that accompanies this form of the disease, attention should have been called to the fact, that the same sort of discharge and induration is sometimes met with as the result of inflammation of the mucous glands near the orifice of the urethra, and as these symptoms may follow, and possibly be caused by sexual intercourse, much unnecessary anxiety may be experienced as to their significance, if we are not aware of their occasional occurrence from non-specific causes.

In describing the treatment of chancre, no mention is made of Monsel's Salt, as a local application. Its use was recommended some years since by Dr. Toland, of this city, as one of the best local applications that can be used. We know of no reason why it should not have found a place in a systematic work on syphilis, except, indeed, that it originated too far West. We intend, on some occasion, to offer a comment on the text, "That no good thing can come out of Gallilee," in which, we believe, it will not be difficult to show that rays of scientific truth travel much more easily in a direction from west to east, than from east to west; in fact, that it has been necessary for some that have originated here, to make their way across the Pacific, and take a fresh start from Europe, before they become impressed on the mental retinæ of our brethren in the Eastern States.

The chapter on the treatment of syphilis contains all the experience of our most enlightened surgeons on the subject. In the real syphilitic infecting disease, mercury is still the sheet-anchor, and its value far from being diminished by a more accurate knowledge of the pathology of the disease, has become, we think, more clearly demonstrated than ever. Formerly, when the larger portion of cases that were regarded as syphilis, were in reality no syphilis at all, it is not surprising that many cures of what was supposed to have been the syphilitic disease, were brought forward as examples of the uselessness of mercury; but, now, that a more accurate diagnosis has enabled us to eliminate these cases of pseudo-syphilis, it is found that for the treatment of the real infecting disease, there is no remedy which exerts so beneficial an influence as mercury. Fortunately, however, and this we consider one of the greatest benefits that our recent advances in syphilography has conferred on society, the use of this medicine can now be much restricted, by far the larger number of cases of syphilis which come under our notice being of the non-infecting variety, in which a local treatment is all that is required.

The different forms of secondary and tertiary disease are fully and ably treated on, but we think a little more space might have been devoted to the diseases of the nervous system, resulting from syphilis. They constitute a very interesting class of diseases, and are amenable frequently to anti-syphilitic treatment, when their cause is once recognised. They include the different forms of nervous diseases arising from non-specific causes, presenting, however, certain anomalies as to age, nocturnal exacerbations. In a work recently published on the subject ("Des Affections Nerveuses Syphilitiques") by Drs. Gros and Lamereaux, they observe:

> "Syphilitic nervous affections manifest themselves by symptoms almost identical with those of the majority of nervous affections. This absence of all pathognomonic character seems to be one of the causes why they have hitherto been unrecognised and confounded.
>
> "Their diagnosis is, however, almost always possible. It rests—1. On the antecedent or simultaneous existence of one or more accidents belonging to the syphilitic diathesis. 2. On the appearance of the affection at an age

different from that at which it is usually developed. 3. On the absence of the ordinary causes of nervous affections. 4. On the absence of any sign indicating that the nervous affection ought to be referred to another cause. 5. On the regularity of the appearance of the nervous affection at a given period of the general disease. 6. On the successive appearance of numerous and various nervous phenomena, giving to the affection, in this respect, certainly, a special character. 7. On the inefficacy of all medicines usually considered beneficial in nervous affections. 8. On the favorable result of specific treatment. 9. On the habitual relapses when the treatment is not long continued. The combination of several of these characters will produce, in the great majority of cases, an almost absolute certainty."

In conclusion, we cannot finish this article without strongly recommending our readers to obtain the work, for, although it is rather bulky, yet we have endeavored to point out to them the chaff that is mixed up with the grain; nor do we know of any other work, published in this country, which contains so much valuable information that requires to be diffused amongst the profession.

LECTURES ON MATERIA MEDICA AND THERAPEUTICS. By John B. Beck, M. D. Edited by C. R. Gilman, M. D. Third Edition. Samuel S. Wood & Co., New York. For sale by Bancroft & Co., San Francisco.

WE have not had time to peruse this work, even if we had the patience. From the fact of its having reached a third edition, there can be no doubt but that it supplies the Materia Medica wants of the community pretty effectually. In glancing over one or two articles, we are of opinion that Dr. Gilman has not quite performed his task of bringing the new edition up to the standard of our knowledge at the present day. Why, for instance, in an article on digitalis is not the happy effect which large doses of this drug produces in delirium tremens, alluded to? Surely the subject has been long enough before the profession, and has received the approval of too many of the careful and scientific physicians to be passed over as a *new remedy*. For, though Dr. Gilman informs us that the author was not, and the editor is not a vaunter of new remedies, yet any work on therapeutics which does not contain the new applications of the old ones based on a sounder general pathology of disease, must, we fear, be behind the times. There can be no doubt but that there is a sad want of some new work on therapeutics, based on our more accurate knowledge of the pathology and treatment of disease, as expressed in the works of Todd, Bennet and others. Until we can have the pleasure of introducing such a work to our readers, we believe they cannot do better than provide themselves with that of Dr. Beck.

DR. SAMUEL D. CRAWFORD, the Surgeon of Fort Sumter, has been appointed a Major in the regular army. In the bombardment of that fort he commanded a portion of the ordnance, and exhibited great bravery.

Editor's Table.

☞ At the commencement of another volume, we would call the attention of our subscribers to the advantages of the voluntary system, not only in church matters, but also in literary and scientific journalism. As it does not pay to send a collector through the State for subscriptions we hope they will be sent in voluntarily, addressed to the Editor, Box 1883, Post-office, San Francisco, or through Express.

Sewerage.

Now that the city is being drained by a system of common sewers, it is of great importance that some attention should be paid to the subject under a sanitory point of view, and that special precautions should be taken to prevent the entrance of sewer air into our dwellings. There can be no doubt but that the contamination of the air of a dwelling-house, even by a very slight escape into it of the vitiated air from the sewer, is a fertile source of disease; and as it has been shown that the pressure of the air in dwelling houses, is generally less than that of the air in the sewers, there will be a constant tendency for the latter to find its way into our houses, unless special means are adopted to prevent it. Owing to the absence of rain for so many consecutive months in the year, there can be no doubt but that during the summer, a large amount of decomposing excreta will be retained in the main sewers, and will tend to develop an atmosphere, highly charged with deleterious principles, which it is of the utmost importance should be prevented from entering our dwellings, not only for the sake of comfort, but for our health, and more particularly for the health of our children. It is by increasing infant mortality, that these noxious emanations show their most marked effects, more particularly in the production of the various disorders of the nervous system, which in children are usually so fatal. For example, it is found that in some of the healthier rural districts in England, but 26 deaths per thousand occur amongst infants from these nervous disorders, whilst the mortality from the same cause in some of the manufacturing towns, amounts to 383 per thousand, or nearly fifteen times greater. This increase of mortality in this one class of disease, results, in a great part, from the poisonous indoor influences to which children in large towns are subject. Great attention should be paid to trapping the drains leading into the main sewers, to prevent any communication by which the air can escape from them into the houses; and as this can be done at a slight expence, it would be well for every householder to see, when the drain is made, that proper precautions are taken.

Health of San Francisco.—During the last month, the mortality of the city has been considerably increased, no doubt owing to the very wet spell of weather we have just passed through. It must, however, be remembered, that our population received an addition of many thousands from the flooded districts, and also from new arrivals, most of which latter class have been detained in the city. The deaths during the month of December amounted to 195, more than one-third of that number being due to children under three years of age. Of 140 interments that were made at Lone Mountain Cemetery, 16 or 12·3 per cent. were entered as dying of consumption; 11 or 8·2 per cent. as dying of typhoid fever; and 7 or 5·3 per cent of diphtheria. There can be no doubt but that the improvement which has taken place in the weather will be followed by a diminished mortality.

We find the following statement in the *Medical Times and Gazette*, which did it not betray a great want of knowledge on a subject which deeply interests the welfare of thousands, would be really amusing:

> "The Empress of Austria, who, as your readers are aware, went some time ago to Corfu, under the care of Professor Skoda, for tuberculosis of the lungs, is reported considerably improved. The heat of Corfu is at present very great, amounting to 95° F. at mid-day, to 77° in the evening, and only a little less in the morning. Sudden changes of the temperature, however, never take place, and even after sunset walking in the open air is not injurious to the patient. The climate of Corfu agrees remarkably well with the Empress, and the infiltration of the lungs, which had made alarming strides of late, has become stationary. The cough has quite ceased, and the general health of the illustrious patient is much improved. It has not yet been determined where the Empress will pass the winter, but it is settled that she leaves Corfu on its approach, as the winter there is not suitable for delicate patients suffering from diseases of the chest."

If we are to consider the climate of Corfu favorable for ph'hisical patients, where "walking in the open air after sunset is not injurious to the patient," we hardly know how high we ought to rate the climate of California, where not only can our patients walk in the open air after sunset without injury, but where they can sleep in the open air during six months in the year, with manifest advantage. During the past summer, we have had phthisical patients camping out in the mountains, and sleeping under the trees, in whom not only has the infiltration of the lungs become stationary, but in whom it has entirely disappeared.

Whilst on the subject of phthisis, we will endeavor to give as literal a translation as possible of a communication by M. Piorry, presented to the Academy of Medicine in Paris, furnishing, as it does, a sufficient reason why phthisis should still prove itself incurable to physicians of the older school.

"M. Piorry read a communication on the treatment of pulmonary phthisis. The author enumerated the long list of remedies that had been brought forward at different times against tuberculosis, and endeavored to prove that the use of the greater part of these remedies and therapeutical methods was founded either on a blind empericism, or on hypothetical theories. He observed that all the means of treatment had been finally condemned by clinical experience, and he believed that the only rational treatment of pulmonary phthisis, is that which reposes on the precise indications furnished by the exact or plessimetric diagnosis of monorganisms, and which, prescribing all the pretended specifics, combats each lesion, local or general, by the treatment it requires. M. Piorry insisted more particularly on the necessity of favoring expectoration, and thus preventing the *anoxemia* which might result from the retention of muo-purulent secretions in the acrea-tree, on combatting the *splenemogolia* by sulphate of quinine, and the *chloro-anemia* by ferruginous medicines."

Some twenty years ago, we listened with both pleasure and profit to M. Piorry's lectures on Diagnosis, and we only regret, that at least as regards pulmonary consumption, the only progress he appears to have made since that time, has been in the invention of a barbarous and unintelligable nomenclature. As well might we treat gout by applying a cooling lotion to the great toe, as to base our treatment of phthisis on expectorants and other drugs. Behind the pulmonary disease exists the tuberculosis of the system, which must itself be remedied, if ever we hope to treat phthisis successfully.

We have already pointed out, in former numbers of this Journal, how this is to be effected—it certainly can never be accomplished by drugs.

Abstracts.

SPERMATORRHŒA.—In the *Cincinnati Medical and Surgical News*, Dr. Hunberlier describes a method of treating spermatorrhœa, by anointing the perineum three times a day with an ointment composed of extract of aconite and lard. The thing is worth a trial, substituting, however, the veatrine for the extract. We have not yet found any medicines that exert much influence on the disease, and, as the natural remedy for it is sometimes difficult to obtain in this country, the treatment above recommended may be tried, as at least it can do no harm.

A NEW METHOD FOR THE TREATMENT OF FRACTURES AND DISLOCATIONS WITH FRACTURES IN AND NEAR THE ELBOW JOINT.—In the *Medical and Surgical Reporter*, Oct. 26, Dr. Twinburne, of Albany, describes a very simple, and we should think a very efficient apparatus for the treatment of fracture in and near the elbow joint. It consists of two thin pieces of board, one long enongh to extend along the front of the forearm, from the elbow-joint to near the wrist; the other from the joint to about the insertion of the deltoid. The boards are united so as to form a hinge joint, by adhesive plaster, or something rather more tenacious. In applying it, it is to be laid

A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late John W. Francis.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from eminent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the Summary of Medical Sciences will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "The Epitome" —and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. Wells, M. D.—Dear Sir: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage and can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Sanitary Science in the Camp,

Being the Conclusions of the Commission appointed by the British Government, to inquire into the Sanitary Condition of the Army in the Crimea.

BY GEORGE W. WILDE, M. D.

ALTHOUGH it has been my fortune to spend a considerable portion of my professional life abroad, I still take a deep interest in the political affairs of my native country, and would gladly add whatever of influence or power I may possess to sustain a government, the wisest and best ever created, in its efforts to maintain its supremacy. That the Federal Government will have an army of any dimensions which it may require, I do not doubt; nor do I doubt the result of the war. The old flag—the stars and stripes—will long continue to float an emblem of a united and a free government; not only over every inch of our national domain, but in every harbor of the civilized world.

But the question of vital interest with me is, will there not be an immense and needless sacrifice of life from preventable diseases in an army so quickly collected from among the people, and so unaccustomed to the habits and pursuits of the soldier's life? I am glad to learn that this subject has already engaged your attention, and that measures have been taken by government to remedy these evils.

My attention has been repeatedly called to the sanitary condition of troops in my travels on the continent and in the East; and my observations have given me the liveliest apprehensions in regard to the health of the vast army now assembled along the borders of the Southern States. Unless the highest degree of intelligence in matters relating to the management of troops in camp, and in the field, is possessed by the medical staff, the disasters by sickness are more to be apprehended than reverses on the battle-field; as American physicians have had little actual experience in military life, and as the medical literature in military surgery has to be obtained, for the most part, from abroad.

Yet, it has occurred to me, that there is a large fund of facts relating to the hygiene of armies contained in public documents, and hence quite inaccessible—at least to the majority of medical men. The record of many of these investigations are rich in the fruits of sanitary science applied to armies. I believe I cannot do my professional brethren at home, who are now engaged in their country's service, a better service than by giving at some length, and in detail, except where condensation is possible, the results of some of these official inquiries.

The following are the conclusions of the Sanitary Commission sent to the Crimea by the British government, to inquire into the sanitary condition of the troops. They will be seen to embrace the most important facts relating to the hygiene of camps, and are the result of a series of long and laborious observations:

PRACTICAL CONCLUSIONS RESPECTING THE CAMP.

I. That by far the greater part of the disease and mortality existing in the camp, when the commission arrived in the Crimea, was due to zymotic maladies, such as cholera, fever, diarrhœa, and dysentery.

That besides the effects of topographical and climatic peculiarities connected with the occupation, and making allowance for the predisposing influence of other conditions, to which the troops had been exposed, the prevalence of zymotic maladies was obviously connected with local favoring causes, essentially the same in kind as those observed in civil life, especially in rural districts, namely:

Damp.
Impure Air.
(Although in a minor degree) Impure Water.

II. Attacks of zymotic disease were observed to be connected with the three following sources of dampness:

A wet subsoil; a retentive surface soil; confined locality.

1. Of these three conditions, *a wet subsoil* occasioned the largest proportional amount of sickness.

The experience of the 79th Regiment, and that of the 31st and Royal Artillery, who were successively camped on the same ground, below Marine Heights, proves that one of the worst sites for a camp is that in which a thin bed of porous material rests upon an impervious bed beneath, which retains the water, and keeps the subsoil charged with it, while the surface may afford little or no indication of the fact.

Dangerous sites of this kind were often marked by a greener or more vigorous vegetation than that of the surrounding district, or by water-springs coming to the surface, or by evening fogs setting over them sooner than over the adjacent country.

Before selecting positions for camps in unknown ground, it would be very advisable to dig trial holes a few feet deep, to ascertain what is the condition of the subsoil drainage, and not risk the health of the men in camping on ground in which these trial holes show the presence of water near the surface.

Should it be necessary, for military reasons, to hold a position on a wet subsoil, the whole should, if practicable, be thoroughly drained by deep trenches, and if there be a hillside or water-shed above the ground, the surface-water from it should be turned aside from the site by deep, catch-water drains, as was done with the camp of the Highland Division at Kamara.

If the position be such that deep trenching and draining cannot be carried out, it is in the highest degree probable that if held for any length of time, it will be at a considerable sacrifice of the force.

2. *The retentive character of clay surface soils*, and the difficulty of

draining such soils, render it advisable to avoid them as camping-grounds, when it is possible to do so.

Wet clay soils keep the air near the ground damp and cold, and they affect the atmosphere of tents and huts in a similar manner. There was sufficient proof of their injurious effects on the health of the troops in the Crimea.

Where such soils must be occupied, for military reasons, the defects in the natural drainage should be remedied, as far as practicable, by trenching the ground, and by trenching the site of every hut and tent separately. connecting the hut and tent drains with the larger trenches. In this way, not only are the sites and the vicinity of the huts and tents kept comparatively dry, but the surface water is more readily removed, the exhalations from the damp soil diminished, and the air purified. The experience of the army in the Crimea showed the very beneficial effects of this surface drainage and trenching on the health of the troops.

3. *Dampness of the air, arising from the nature of the locality*, proceeds from the topographical peculiarities of the ground preventing a free circulation of the air, and the atmosphere becoming stagnant, and charged with moisture from the ground. The valley of Karani above Kadikoi afforded an illustration of this, in certain states of the weather.

It was observed in other parts of the seat of the war in the East, that damp white mists, settling in valleys or hollows occupied by troops, had been the precursors of epidemic diseases, especially of cholera. All valleys are at times exposed to similar occurrences, especially such as contain stagnant lakes. An unhealthy and stagnant state of the air is sometimes increased by brushwood or trees.

There is often no escape from epidemic sickness occurring among troops from the occupations of such positions; they should, therefore, be avoided or abandoned.

III. The evils resulting from these local causes of dampness were not unfrequently aggravated by the manner of pitching tents and erecting huts. Want of due preparation of the ground and defective drainage of the site, often led to a damp state of the air within huts or tents, and induced a tendency to fevers.

Deep trenching round the tent-site, as already mentioned, is the best remedy, and in case of huts, the site should be isolated from the surrounding ground, and the area to be occupied by the hut, drained by a trench dug round it at least a foot below the level of the floor.

If it be not practicable to drain the subsoil, and if the position must be held, adequate provision should be made with any materials at hand for raising the beds of the men above the ground.

Huts should never be banked up with earth against the wood. The experience in the Crimea has shown that it is a dangerous practice, for it used to be a common cause for fevers. An interior lining, even of old newspaper, affords a much better, and at the same time a perfectly safe protection from draughts.

The flooring of huts should be occasionally raised, the surface of the face of the ground below cleaned, and quicklime and charcoal strewed over it.

For hospital huts, an interior lining of boards, or building a rough rubble stone wall outside, as was done in many of the regimental hospitals, affords the requisite protection from weather, and from sun heat.

IV. The camp before Sebastopol was, generally, remarkably clean when first visited; but there were in certain situations sources of atmospheric impurity from putrescent organic effluvia, likely to influence injuriously the health of the troops. The chief of these were:

Picketing-grounds, and manure heaps.

One or two slaughtering-places, and latterly the large cattle depot and slaughtering-places at Kadikoi.

The graveyard and putrid marsh near Balaklava.

Latrines kept too long open, and exposing too large a surface.

When an army can shift its ground at will, danger to health from similar evils can always be avoided by doing so.

When, on the other hand, an army is tied to its position for a length of time, the camp becomes a town, and is subject to all the sanitary defects of towns, as these existed before the introduction of the first great step that was taken for improving the public health, namely, the introduction of paving.

Picketing of horses saturates the ground they occupy with organic matter. In like manner, accumulations of manure, if allowed to remain, saturate the ground they cover. Filth of any kind is washed into the ground by the rains, or trodden into by the steps of men and animals, and must necessarily give off impure emanations under the joint action of sun, heat and moisture.

To avoid the injurious consequences likely to arise from these circumstances, it is indispensably necessary to observe the most scrupulous cleanliness over the whole surface and vicinity of a camp.

Bones and refuse of food can be most easily disposed of by burial.

Stable litter and all inflammable refuse should be carefully burned. The usual method of forming heaps of litter and firing it, is imperfect. Before being fired, it should always be opened up, to admit the air to dry it, and to expedite the combustion. Manure heaps burn with difficulty, if left on the ground for any length of time before they are fired.

Carcases of animals and offal should be buried to a sufficient depth below the surface. Three feet is enough under ordinary circumstances. Refuse charcoal dust thrown over tainted ground will assist in deodorising it, or if that be not obtainable, the burning of stable litter on the spot will furnish sufficient charcoal for the purpose.

Latrines should be made narrow and deep; a quantity of earth should be thrown into them each day, until they are filled within two feet of the surface, after which the latrine should be filled up, and another dug.

When an army requires to occupy the same surface of ground for years, it would be unsafe to bury the refuse in the ground, because eventually the soil would become saturated with organic matter, and dangerous to health.

In such a case, the construction of furnaces to consume every organic product of the camp, is far the best and safest proceeding. Speedy collection, removal, and destruction by fire of all such refuse matters obviates any risk of danger from them.

V. *Atmospheric impurities arising from overcrowding and defective ventilation of tents and huts,* were a frequent predisposing cause of zymotic disease.

Were it practicable in warfare to diminish materially the number of men sleeping in tents, it would be advisable to do so.

But considering the limited transport at the command of an army in the field, the injurious consequences of overcrowding may, to a considerable extent, be obviated by a free ventilation of huts, and by improving the construction of tents and marquees, by introducing effectual means of ventilation round the top of the poles.

In the case of huts, ridge ventilation is the most efficient.

Lime-washing huts inside, especially hospital huts, purifies the air; lime-washing of huts outside protects them, to a certain extent, from the intense sun's rays, and keeps them cooler within.

The usual effects of striking tents and shifting ground is an excellent means of avoiding the effects of saturation of the earth by emanations proceeding from the breath and bodies of the men.

VI. The condition in which the water was drawn for use in the camp was likely, especially during the prevalence of cholera, to aggravate the severity of the disease, although not to a great degree.

It is always desirable that water for drinking and cooking purposes should be as nearly as possible destitute of color, taste, or smell. Anything that interferes with these three natural tests is more or less injurious to health; but marsh water, however apparently pure, is not wholesome.

All engineering works for supplying camps with water should comprehend—

The selection of the purest obtainable source.

The delivering the water for use as pure as it is at its source.

If it be necessary to pound the water, the tanks should be covered.

Water should, if practicable at all, never be drawn by dipping, if it be rendered muddy in the act of being so drawn.

If a source of water of sufficient purity be not obtainable, the water should be filtered. A filter may be made with sorted gravel, clean sand, and charcoal.

Every trough for supplying horses should have a separate inlet and overflow.

GENERAL CONCLUSIONS FROM THE WHOLE EXPERIENCE.

I. That as scurvy, and the forms of disease connected with it, almost disappeared from the army under the influence of improved diet, &c., so, in like manner, zymotic diseases, the destructive effects of which mainly depend on breathing a humid, tainted atmosphere, declined on the carrying out of suitable sanitary works and measures.

II. That men just arrived in a new country are especially liable to suffer from prevailing zymotic maladies. That any given number of reinforcements will not compensate to the service for the loss of the same number of the original force from these diseases, and hence the necessity for effective sanitary precautions is doubly imperative, whether as regards the abatement of local favoring conditions, or the discovery and immediate treatment of the premonitary stages.

III. As the result of their whole experience, the Commissioners beg to express their opinion, that, inasmuch as the neglect of military hygiene, whether as regards the soldier personally, or the sanitary condition of camps, barracks, and hospitals, has hitherto, in all countries, climates, and seasons, been the cause of the largest amount of loss in armies, the whole subject, closely connected as it is with the physical efficiency of Her Majesty's forces, demands in future a practical development commensurate with its importance to the public service.—*American Medical Times.*

SPINA BIFIDA, TREATED BY IODINE.—Professor Brainard reports a case of spina bifida which he treated by iodine injection. The patient was a girl aged three years. A small-sized hydrocele trocar was carried into the base of the tumor, and six ounces of fluid drawn off, pressure with the thumb at the same time being made, so as to close, as perfectly as possible, the opening in the spinal column. Half an ounce of solution made of iodine gr. v., iodid. potass. gr. xv., aq. distil. oz. j., at the temperature of the body, was injected, and after a few seconds allowed to flow out; distilled water, of the temperature of the body, was then thrown in to wash out the iodine, and two ounces of fluid first drawn from the sac, kept at the temperature of the body, were reinjected, the canula withdrawn, and pressure applied.

One injection sufficed to effect a cure. This is the seventh case which he has treated in this manner, and in no case has he seen it produce dangerous symptoms. Three of the cases were accompanied by hydrocephalus, and were all permanently cured—one with thirteen injections, one with two, and the last with one.—*Ibid.*

Treatment of Uterine Inflammation by Nitrate of Silver and other Substitutive Agents.

BY E. J. TILT, M. D., M. R. C. P.

In using these agents we apply the general principle of therapeutics to the treatment of inflammatory affections of the womb and its associated organs. The utility of a solution of acetate of lead in inflammatory affections of the skin implies similar utility in inflammatory affections of the vaginal mucus membrane; the utility of solutions of borax and of chlorate of potash in affections of the mouth pointed to their trial as vaginal injections; the utility of sulphate of zinc and nitrate of silver in urethral strictures demonstrated by J. Hunter, E. Home, Lallemand, etc., suggested their employment in uterine catarrh; the sovereign utility of the solid nitrate of silver for the cure of cutaneous ulcerations caused it to be tried in ulcerations of the womb. To whatever mucus membrane these agents are applied, they act in the same way—they substitute a therapeutical irritation to one which might uncontrollably compromise the structures attacked—a temporary irritation to one that tends to become permanent.

In treating of injections, I have already enumerated several agents which act in this way, such as borax, chlorate of potash, acetate of lead, alum, sulphate of zinc, etc. They are generally given largely diluted, but if used in a solid or highly concentrated state, the action of these agents would be analagous to that of two other important agents, nitrate of silver and tincture of iodine, which are called caustics by courtesy, but are no more caustics than tincture of cantharides. I wish it to be understood that I hold these agents sufficient for the surgical treatment of uterine inflammatory diseases in the large majority of cases, and so does Dr. H. Bennet, although it has been stated that we use strong caustics in ordinary cases of uterine disease. In a comparatively small number of instances, the structures of the womb have been too deeply modified by inflammation or by hyperthropy, and are in so low in a state of vitality, that the above named agents are insufficient to bring about the cure of disease. Then I have recourse to another class of substitutive agents, which are undoubted escharotics, for they cause a loss of substance proportionate to the amount of caustic used. Those caustics induce healthy acute inflammation in the tissues underlying the eschar, and, by judicious management of this healthy inflammatory action, the cure of chronic cases is often induced.

The caustics of which I shall treat are, the acid nitrate of mercury, potassa fusa cum calce, potassa caustica, sulphate of zinc and the actual cautery. It may seem strange to class together sulphate of zinc and potassa fusa cum calce, but one is justified in doing so because the substitutive action which I ascribe to a solution of sulphate of zinc is pre-eminently shown in the results of potassa fusa cum calce, which often so raises the vital endowment of the uterine tissues as to promote rapidly healthy nutritive action in tissues which had been diseased for many years.

Such is my mode of practice, and I am glad to find that it accords to a certain extent with the practice of all those whose opinion carries weight, and who, having in vain tried to cure uterine disease by nitrate of silver or milder measures, have recourse to one or the other of the strongest caustics. Dr. Fleetwood Churchill depends on nitric and muriatic acids, and on the acid nitrate of mercury, which is also preferred by Dr. E. Kennedy and by

Dr. West; and although this distinguished pathologist considers ulceration of the cervix to be a condition of slight pathological importance, when he has to trace out a plan of treatment for his pupils, he has none other to propose than that long ago carefully laid down by Dr. H. Bennet. The late Dr. Rigby, though adverse to surgical treatment of uterine affections, admitted that there were certain cases of uterine ulceration requiring the use of potassa fusa or potassa fusa cum calce. Dr. H. Bennet prefers potassa fusa cum calce. This is not energetic enough for Professor Simpson, who uses potassa caustica; while the French strongly advocate a remedy older than Hippocrates, the actual cautery.

These comments upon the treatment of uterine inflammation will show that I am an eclectic, and that I use all the valuable agents which I have enumerated in cases which I shall specify. Again reminding the reader that I am not writing a treatise, I shall proceed to comment on the use of our principal substitutive agents.

Tincture of Iodine.—It is the ordinary tincture of the Pharmacopœia which I mean, not the caustic tincture. I shall be brief on this agent, having already mentioned it as a revulsive, and having compared it with others then under discussion. Tincture of iodine seems to act as an astringent when slightly applied to the hypertrophied or inflamed surface of the neck of the womb, but as a vesicant if several applications are made at one and the same time, and as a resolutive if re-applied every third or fourth day. It is much less useful than nitrate of silver as a topical application, but it suits better some idiosyncracies, and is well borne in diphtheritical inflammation, when nitrate of silver should not be used. The fact that a solution of iodine can be injected into closed cavities and fistulous passages without severely inflaming them, marks it out as the best liquid to be injected into the body of the womb, in the very rare cases requiring such treatment; for it has less frequently given rise to the alarming symptoms of peritonitis, which have very often followed the intra-uterine injection of a solution of nitrate of silver. I use one drachm of this tincture to an ounce of distilled water, and inject it by means of an instrument similar to that devised by Mr. Coxeter for injecting fluids into the larynx.

Nitrate of Silver.—"The application of nitrate of silver is a means, under certain circumstances, of subduing external inflammation. Might it not, on this principle be of service in the treatment of the internal phlegmasia?" Such is the question asked by Dr. Higginbottom in the preface of his admirable little work on "The Lunar Caustic," published in 1826. His question has been answered in the affirmative by a great many eminent practitioners, who have applied nitrate of silver for the cure of inflammatory affection of the mucus membrane of the eyes, ears, mouth, throat, urethra, the intestines and the rectum. As regards the mucus membrane of the genital organs, Dr. Jewel, in 1830, strongly advocated its use; and I have no hesitation in saying that this agent is quite as useful in curing the varied inflammatory conditions of the genital organs as in curing those of the skin. It is often necessary to preface the use of nitrate of silver by linseed tea, poppyhead, or other cooling injections in the same way that Mr. Higginbottom repeatedly inculcates the utility of cold poultices previous to applying nitrate of silver to the inflamed skin. If, after antiphlogistic treatment, the nitrate of silver increases too much habitual pains, or causes the ulcerated surface to bleed for two or three days afterwards, it is well to try a solution of from forty to sixty grains of nitrate of silver to an ounce of distilled water. In many cases the solution is sufficient to effect a cure; it gives less pain, but it may be necessary to repeat it every third or fourth day. Sometimes I use a solution of nitrate of silver containing one ounce of salt to two or three ounces of distilled water, as an application to ulcerated surfaces. Chronic uterine catarrh, or inflammation of the mucus membrane lining the neck of the womb, which has been truly called an open gland pouring out mucus from ten thousand follicles, seems to be the most frequent of all uterine diseases. Without having the slightest abrasion, the mucus membrane lining the neck of the womb and its vaginal surface may be of a dusky, livid hue, tender on being touched, and secreting pus. This condition may last for years, but it generally leads to a more or less extensive denudation of the uterine mucus membrane, and gives an excoriated appearance to the neck of the womb. Such cases, with or without excoriation, can be cured by the nitrate of silver in solution, used every fourth or fifth day, with the occasional use of the solid nitrate. If the mucus membrane lining the cervix be principally affected, it is often so obstinate as to render the painting of it with solution of little use. The solid nitrate must be freely employed, and when the cervical canal is unusually dilated, I sometimes leave about one-eighth of an inch in the canal; by which it will be clear that, so far as my experience goes, should the stick accidentally break in the cervical canal it need give no alarm. What cannot be removed will cause more pain, some loss of blood, and perhaps even a return of menstruation; but the patient may be repaid for greater suffering by a speedier cure. It has been stated by Nonat that this mode of treatment has caused stricture of the uterine canal in his practice and in that of Richet. I have never met with this accident, and I think its occurrence is to be prevented by the occasional passage of the uterine sound for a few weeks after this severe application.

With regard to the treatment of the various forms of ulceration of the womb, I can add nothing to what has been so well laid down in Dr. H. Bennet's work. Mr. Higginbottom, whose statements with respect to the action of nitrate of silver deserve the highest consideration, affirms that its action does not extend beyond three days after its application; and it is generally received that it is necessary to repeat the use of this agent so soon as the epithelial pellicle has fallen off, or every third or fourth day. In many instances this is the best way of insuring the most rapid recovery; but I do not recommend the too strict adherence to this precept, as it is often well to leave five, six, or seven days interval between the applications, or we might work as did Penelope, and retard the cure of the case. This, however, is a matter of surgical experience in each individual case.

Whether vaginitis occurs spontaneously or as the result of uterine catarrh, it is best cured by the injection of a solution of nitrate of silver. This is an excellent idea of Dr. Jewell's, but if the solution be sufficiently strong to do good it cannot be safely trusted to the patient. The patient being placed on her back, a small glass speculum should be introduced as far as possible, and an ordinary glass syringe full of a solution of nitrate of silver, containing forty grains to the ounce, should be injected. The speculum should then be withdrawn to the vicinity of the vulva, and the fluid should be left in contact from three to five minutes, after which the speculum is to be withdrawn and the fluid received in a small cup. Sometimes I apply a speculum of appropriate size, and as I withdraw it I pretty freely touch the vagina with the solid nitrate of silver diluted by the chloride of silver, as prepared by Mr. Squire. This is a modification of a plan which is recommended by Ricord.

I recommend these injections where there is evidence of inflammation of the womb, with excoriations of its cervix, in virgins in whom the integrity of the hymen prevents the introduction of a moderate-sized speculum. This plan should be first tried before forcibly dilating or incising the hymen—an operation which is very rarely required. I have frequently made these injections in many cases, and I do not once remember having traced menorrhagia to their administration. I mention this as it seems to have often occurred in the practice of Dr. Fleetwood Churchill. So many serious accidents have followed the injection of nitrate of silver into the body of the womb, that I prefer using tincture of iodine in solution whenever intra-uterine injections may be required. In very rare cases of chronic internal metritis it may even be necessary to apply the solid nitrate of silver to the internal surface of the body of the womb, as well as to adopt other modes of treatment, for an account of which I refer the reader to my papers on the Treatment of Internal Metritis.*

In follicular inflammation of the labia, in eczema and prurigo pudendum, or puritus both external and vaginal, a piece of cotton-wool should be soaked in the solution of nitrate of silver, and carefully rubbed for two or three minutes over the diseased portions of the skin and mucus membrane. I can speak with confidence of this plan, for I have lately cured several patients who have been suffering in this way for four, eight, and thirty years. When cases have lasted so long the pudendal skin looks and feels like parchment. It was so in the case of a lady in whom the disease had lasted thirty years, and I first rubbed in the solution every day, then every other day, then every fourth and fifth day, until the skin became soft and pliable, and the sleep was no longer disturbed by darts of pain flashing along the nerves. This patient was cured in three months, and had no relapse during the last year.

I trust I have said enough in praise of nitrate of silver; but in many forms of uterine inflammation much more severe agents are required to restore the womb to a healthy state. This fact is admitted by so many authorities at home, in America, or in foreign countries, that I am surprised to find the contrary asserted by Dr. Meigs and Dr. Tyler Smith. After describing the evil effects of caustics in the treatment of uterine disease, the latter pathologist, in his work on "Leucorrhœa," (p. 208,) gives as his opinion that "there is no good which can be effected by the more powerful caustics which cannot be accomplished by the nitrate of silver, or by other means. It is true that by the prolonged application of the nitrate of silver loss of substance may be caused; but this is far less likely to occur with lunar caustic than with the more powerful escharotics. It is also true that some practitioners apply the more violent caustics so lightly that they do not exceed the milder action of the solid nitrate of silver; but in such cases it would be quite as well to use the safer remedy where a caustic is required." And at p. 206, "In applying the nitrate of silver, the aim should be not to produce any slough or loss of substance." Thus it is clearly stated that the slight application of the strong caustics is tantamount to the full action of the nitrate of silver in like cases of uterine disease.

My experience, on the contrary, teaches me that nitrate of silver is no more a caustic than tincture of cantharides, as Mr. Higginbottom has so long ago asserted. The distinction that Dr. Meigs draws between the antiphlogistic touches and the escharotic action of nitrate of silver does not bear examination. Use it as you may the nitrate of silver does not cauterize. Leave it in the neck of the womb, it will cause more pain, loss of blood, and subsequent discharge, but no destruction of tissue, unless coagulate mucus mixed up with epithelial scales and insoluble chlorides of silver may be called such. Even when applied to a fungous ulcer, the slight loss of substance is rather due to the friction of a hard body on a pulpy than to the chemical combination of the neutral salt and the diseased tissues. A densely hypertrophied neck of the womb might be whitened with a solid nitrate of silver every fourth day until doomsday, without much reducing its bulk. Indeed I have seen such a plan of treatment injudiciously continue for a year or longer in a case of hysteralgia, the neck of the womb being healthy and of an average size, and the effects were rather astringent than caustic, condensing the tissues, narrowing the cervical canal, and rendering its dilatation necessary and difficult. Thus, while nitrate of silver may be repeatedly applied without inducing a loss of substance, the slightest application of the potassa fusa to the neck of the womb produces an evident loss of substance; and,

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* The Lancet, 1853, vol. ii.

therefore, the two agents, however applied, produce totally different effects in similar cases. This is a question of surgical therapeutics which can be decided by any experienced surgeon. Writing on the treatment of stricture caused by gristly thickening of the urethral mucous membrane, Mr. Wade records his twenty-five years' experience of the comparative advantages of nitrate of silver and of potassa fusa, and he states: "I cannot let this opportunity pass without again calling attention to the fact, that the effects of the argenti nitras and of the potassa fusa admit of no comparison, as they are totally dissimilar; that the former, when freely used, from its tendency to cause adhesive inflammation, has often been found to increase the urethral obstructions, whilst the remarkable solvent powers of the latter have no such tendency."

The too free use of nitrate of silver to the inodular tissues of the urethra causes urethral stricture, as the too free use of the same agent to the certival canal causes stricture of the neck of the womb, but without loss of substance. Indeed, if the whole range of diseases in which nitrate of silver is now used be passed in review, it will be found that it always acts by its dynamic, astringent, and antiphlogistic properties; whereas escharotics can only raise the standard of vitality of any given tissues by the previous destruction of their superimposed surface. I maintain, on the contrary, that there is one good to be done with the more powerful caustics which cannot be accomplished with the nitrate of silver; that is, to shorten the treatment of many cases in which it is at first judicious to try it. Ulceration of the neck of the womb, on a hypertrophic basis, may doubtless be sometimes cured by the use of nitrate of silver, but the treatment might be indefinitely prolonged; whereas, it can be very much shortened by one or two applications of the acid nitrate of mercury or of potassa fusa c. calce. When the inner cervix is chronically inflamed, nitrate of silver may enable us to effect a cure; but with that agent, however applied, cures are sometimes so tedious that it is well to resort to one or two applications of the acid nitrate of mercury or of potassa fusa c. calce. In fungous and varicose ulceration the nitrate of silver causes the surface to bleed profusely, and does more harm than good; whereas I find that in these cases, the acid nitrate of mercury and the actual cautery stop the bleeding and promote a cure. I think it right to be sparing of caustics to the neck of the womb in pregnant patients; but I have seen cases similar to those described by Dr. Bennet in which it was necessary to stop an abundant purulent and bloody discharges from a large varicose ulcer, and I have done so with the acid nitrate of mercury after doing more harm than good with the nitrate of silver. So little are caustic agents and nitrate of silver interchangeable substances or therapeutical equivalents, that I find nitrate of silver in some cases to be positively poisonous, while potassa fusa c. calce conduces to recovery. In diphtheritic inflammation of the neck of the womb and of the vagina, nitrate of silver acts as a poison. In a case now under treatment there is a small patch of false membrane on the posterior lip of the os uteri, and around it are numerous ulcerations. Were I to touch them with nitrate of silver, they would soon be covered with false membranes. Tincture of iodine would not produce this effect, neither would the potassa fusa c. calce; these, therefore, are the best means of curing this tedious complaint, of which I have seen two instances, and Dr. Bennet three, and he would endorse what I affirm of such cases. Occasionally we met with cases like two I am now attending, in which an extensive superficial excoriation of the neck of the womb bleeds profusely, and for the following two days, even when touched with the nitrate of silver, which likewise makes the sore more angry. In such cases as these, I have nearly effected a cure by dressing the wound with tincture of iodine or the acid nitrate of mercury.

The profession is more and more convinced of the great utility of caustics in many diseases; were it otherwise, surgery would be deprived of a valuable remedy, and the obstetric art robbed of the only means of curing the most distressing cases of uterine inflammation. Patients would thus have to drag on from year to year this weary load of misery, with the only hope that the cessation of menstruation, by putting an end to the physiological liability of the womb might only check its liability to inflammation.—*London Lancet.*

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OPIUM IN LARGE DOSES, AND INHALATION OF CHLOROFORM IN IDIOPATHIC TETANUS.—According to the results of experience, opium is still the most efficacious remedy in the treatment of idiopathic tetanus, and its use may be continued with safety for a long period. Two cases which occurred in the practice of M. Grisolle appear to leave no doubt upon this point; and one of the cases presents this peculiarity, that it shows how much superior opium is to inhalations of chloroform, to which latter great efficacy was at first attributed. The fact is, that although the inhalations of chloroform suspend for a short period the symptoms of tetanus, they do not remove them altogether, and with the elimination of the chloroform the disease resumes its primitive character and pursues its course. The two cases recorded were those of a man and woman, both of whom, without any appreciable cause, were attacked with tetanus. In the first, which was that of the man, inhalations of chloroform were repeatedly employed, with temporary relief; but as soon as the effects of the anæsthetic passed away, the tetanic convulsions re-appeared. At last, opium was given in the dose of five centigrammes every hour (a centigramme is .1543 of a grain); and after some days of this treatment, during which a large quantity of opium was taken by the patient, the tetanic symptoms disappeared, and the patient completely recovered. In the other case, that of the woman, the opiate treatment was pursued from the first, the bowels, however, being relieved by castor oil and purgative injections, and after persevering in this treatment for some days this patient was also cured.—*Bull. Gen. de Therap.*

ALCOHOLIC TREATMENT OF WOUNDS.—Acting upon the suggestion of Messrs. Batailhe and Guillet, as expressed in a pamphlet lately published in Paris, Mr. A. Pritchard, of Bristol, has used the compound tincture of aloes, differently diluted, as an external application to ulcerated legs, superficial burns, contused, incised and lacerated wounds, and an ulcerated stump. He found it to be an application in recent wounds, however deep, checking the suppurative process in a marked degree, destroying the fetor, and favoring union by the first intention. It is not suitable for inflamed wounds, nor where there is an erysipelatous state of the skin, nor for simple cutaneous wounds, where careful apposition alone will suffice to procure immediate union.—*British Medical Journal.*

HOW TO PREVENT VOMITING AFTER INHALATION OF CHLOROFORM.—According to Dr. R. Fischer, a glass of wine, taken about thirty minutes before chloroform, is sufficient for this purpose. In confirming this statement, Dr. L. Elsberg adds that after the administration of the wine the effect of the anæsthetic is produced more quickly, and by a smaller quantity than is required without the precaution.—*American Medical Monthly.*

TREATMENT OF FRACTURES.—There is no one thing probably which better exemplifies the "progress of surgery," than the present management of of fractures. With what uncouth lumbersome machines the unfortunate patients used to be encased, and how bedridden they got, whereas now, the the dressing is so light, strong and safe, that the man with a broken leg walks in the garden. Our New York surgeons, though, seem not yet all to appreciate this style. They revere antiquities; and I will venture to say that there are more of the old clumsy fracture apparatus, now used in the three New York Hospitals, than in all the sixty-two like institutions of Paris.

The modern substitutes for *planks*, &c., are of course familiar to you. Dextrine, gelatine, caoutchouc, plaster of Paris, are all in vogue. The last-mentioned is evidently the best, for it has been under trial since the time of the elder Larrey, who, it is said, first used it; and to this day it stands the most popular. The methods of application have naturally changed as experiences accumulated. Larrey, for instance, moulded the limb in it—others again dusted the powdered plaster over wet bandages—others still applied it with a trowel, as on a wall; and so on to the end, or rather, until the arrival of Maisonneuve. The question is now settled, and all other modes are obsolete. M. Maisonneuve had once the good luck to receive a fracture of the leg, and so this method he first planned on his own person.

For example and explanation, let us suppose a broken tibia. He orders four coarse cloths, longer than the leg, and each so broad that when folded three or four times, they will be respectively reduced to a breadth of from two to four inches—the breadth of course varying with the limb under treatment. After these cloths have thoroughly soaked in the fluid plaster, they are taken dripping from the vessel, and directly applied along the sides of the limb. The lower ends of three of them embrace the foot and lap intimately on the sole. The front one passes on the dorsum to the toes. A circular bandage, saturated or not, is then quickly rolled up to the knee and perhaps down again to the foot. When this bandage has not been soaked in the plaster, the apparatus is called *demi-platre*. In five minutes after everything is solid. The liquid splints have become firm, and every point is supported with an impartiality heretofore unapproached.

Unless when the soft parts are greatly injured, M. Maisonneuvre often applies this apparatus immediately, or may be one day after the accident. This seems unsafe, and I have sometimes seen most discreditable results. However, if any trouble is suspected of existing, there is no apparatus, as a permanent one, that can afford an easier approach to the limb. And the debarassment need only be *partial*; for, after the removal of the bandage one splint, two splints, or only part of a splint, can be readily taken off, and the remainder stand firmly to its duty. If the part thus exposed requires washes, such can be used with impunity. The splints are not easily softened. In like manner are treated almost all fractures—femur, patella, clavacle, &c.

A great many have failed to have success with the method of Maisonneuvre, and it has been often because the cloth used was too *fine*. Some coarse material is the thing, such as old coarse hospital sheeting. The solution of plaster should be as thin almost as milk.—*Paris Correspondence of the American Medical Times.*

SURGEONS FOR TEMPORARY SERVICE IN THE ARMY.—A number of medical gentlemen of Philadelphia have determined to offer their services in a body to the Surgeon-General, in case they may be temporarily needed in an emergency.

Causes of Deaths in England.—To the Registrar-General's report is appended, as usual, an instructive paper by Dr. W. Farr, on the causes of death in England. The year now reported on—1859—is the first in which diphtheria has obtained a distinct line in the tables; it had previously been confounded with cynanche, and when the two are put together the rapid progress of this great epidemic becomes evident; the deaths in 1855 were 381; in 1856, 603; in 1857, 1,583; in 1858, 6,606; in 1859, 10,184. Epidemics of diphtheria are clearly described in the seventeenth century, by Italian and Spanish writers, and its frequent association with scarlatina justifies the inference that the diphtherine—its *materies morbi*—is some modification of scarlatinine. Of the whole deaths of the year one-fourth were referred to zymotic diseases. Small-pox destroyed 3,848 persons, chiefly children who had not been vaccinated; an instance, as Dr. Farr remarks, of the rigor with which the infringement of sanitary laws is visited, for the children perish, and the parents lose their offspring by the neglect of a precaution of the simplest kind. A fatal outbreak of erysipelas at the Winchester Infirmary was traced to a cesspool. Of the parasitic diseases, it is remarked that the ova of worms must be derived generally from impure river waters, into which the refuse of towns is poured. We have but an imperfect conception of the number of deaths from excessive drinking; but 345 were directly ascribed to intemperance, and 545 to delirium tremens—800 in all from the two forms of alcoholism. Passing next to constitutional diseases, —another regiment of the diseases that dog our steps—we find gout described as nearly stationary; it is considered that, thanks to the more intelligent system of dining which the wealthier classes, wearied of this racking disease, will probably introduce, we may hope to see the gout rapidly decline. The deaths from tuberculous disease have decreased since 1853; those from bronchitis have increased very greatly of late years. Amongst local diseases we find affections of the three vital organs—the brain, the heart and the lungs—causing nearly a third of all the deaths of the year. Fright was the cause of 7 deaths (not all children), grief of 8 (7 women), rage of 5 (4 infants), anxiety of 1 (a man), mental shock of 1 (a woman), melancholy of the deaths of 21 men and 26 women. Above 25,000, chiefly infants, died of convulsions —a striking and distressing symptom—but probably only part of the disease, which is the result of organic lesions and local irritations that are never discovered. 27,104 deaths are referred to the decay of old age without any disease—"the weary wheel of life at length stood still." 14,649 persons were killed—a sad confession, says Dr. Farr, for a nation humane, civilized, and skilled in all the arts, to have to make. Annually 75 persons in 100,000 thus die a violent death. 13,056 of these deaths, in 1859, are ascribed to accident or negligence; amongst them were 279 by poison. 1248 deaths were declared by Coroners' juries to be suicides; 338 murder or manslaughter. 18 persons were killed by lightning, nearly all persons of out-door occupations—the house is safer than the field. It is hoped that the arrangement for paying Coroners by salary will bring better information on the subject of violent and sudden deaths, and throw new light on their causes.—*Medical and Surgical Reporter.*

Sir Benjamin Brodie.—We learn that this distinguished ornament of our profession, who was unnecessarily subjected last year to the operation of iridectomy, and afterwards operated on for cataract, has quite recently been again operated on for the formation of an artificial pupil, and we are told with a fair prospect of restoration of sight. We trust the venerable head of the British medical profession will not meet with another disappointment.

Translations by the Editor.

INSERTION OF AN ARTIFICIAL CORNEA.

WE copy the following case from *Schmidt's Jahresbericht*, and extraordinary as it may appear, yet we have no doubt but that the facts are correctly reported, having been published before the Medical Society of Zurich, in Switzerland, at the commemoration of the fifteenth anniversary of the Society. The operator was Dr. T. Heusser, of Richterschweil.—ED.

"A girl, aged 19, had had both corneas so completely thickened by an attack of blennorrhœa neonatorum when an infant, that she could merely distinguish between a very strong light and darkness. On the left cornea there was a small spot which seemed rather less thickened than the surrounding parts, and a fruitless attempt had been made to establish here an artificial pupil. The child had been brought up in the asylum for the blind at Zurich. The globes were somewhat retracted, and the eyelids subject to spasmodic contraction. On September 13, 1859, the operation was performed according to the method described by Nussbaum,* the patient being under the influence of chloroform. The perpendicular perforation in the middle of the cornea and its enlargement on drawing out the knife, did not afford at first sufficient space, so that the wound had subsequently to be enlarged, in order to afford room for the insertion of the crystal. The sides of the wound adapted themselves readily in the groove on the edge of the crystal. After the operation, the patient was kept in a dark room and cold compresses were applied to the eye. During the first twenty-four hours, pain and injection of the cornea slight, but on the second, and again on the fifth day, leeches had to be used. After ten days, all pain and inflammation had disappeared, but there was violent photophobia and great lachrymation on the slightest impression of light, which increased during some weeks, although the room was kept dark. General health good. To relieve the photophobica a collyrium of acetate of lead (½ gr. to 1½ to the oz.) with laudanum or atropine, was used. At the beginning of 1860, the patient could support the light of a cloudy day, without any shade over the eye. At the end of March, the following was her condition: The rock crystal was evidently well borne, as it did not execute any irritation either in the globe or on the lids. There were still some enlarged vessels seen running towards the wound. Lachrymation and photophobia had so far disappeared that the lids were only made to close by a sudden and dazzling light. Surrounding objects, even the figures on a watch, were plainly perceived, but there was considerable want of control over the movements of the eye."

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* We cannot at present find a description of this method, which we believe had up to the present time only been successfully practiced on rabbits. It consists in making a straight incision in the cornea, and introducing a piece of rock crystal, the surfaces of which have been cut to the natural form of the cornea, and in the edge of which is a groove into which the cornea is received, and by which the crystal is retained in situ.

This, so far as we know, is the only instance in which the operation has been successfully performed on man. It is, however, of considerable interest as proving the possibility of the insertion, and healing, so to speak, of a piece of a rock crystal in the cornea. The results, as regards the power of vision were quite satisfactory, considering that the patient was subject to spasmodic contraction of the lids.

CURE OF CATARACT BY THE SIMPLE EVACUATION OF THE AQUEOUS HUMOR.

THE following interesting observations we translate from the *Gazetta Degli Ospedali* of Genoa. It affords another striking example of the progress which is being made in ophthalmic surgery. The author, Dr. Sperino, is a surgeon who enjoys an European reputation, and there can be no doubt but that the promised communication of the details of the cases will shortly appear. The evacuation of the aqueous humor is a simple operation, and in the form of cataract in which it is successful, will have the immense advantage of leaving the patient with a perfect eye, instead of one in which the absence of the lens has to be supplied by glasses.—ED.

"A clinical study during some years of the new methods of treating diseases of the eyeball, (drawing off the aqueous humor) gradually led me to have recourse to it in cases of cataract; and facts that have been observed in the Ophthalmic Hospital, in the Infirmary, and in private practice, have proved that by evacuating the aqueous humor daily, or every second or third day, the opaque lens gradually regains its transparency, the sight being at the same time restored. It was interesting to observe the opaque material of the lens gradually becoming more transparent, and to hear the patients expressing each day an improvement in the power of vision. I shall now limit myself to the simple publication of this new fact. In a short time I will publish the details of the cases, the number of which is constantly increasing; and I hope that my observations will suffice to show, not only the method of operating, but its influence on the different varieties of cataract, and in the different degrees of opacity of the lens; in a word, all that the accurate observation of facts is daily showing me. I will merely observe, that when in any case complete success has not been obtained by the evacuation of the aqueous humor, the eye is left in a better state for the ordinary operation for cataract."

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IF there are quacks who seem to stand up high, it is simply on account of the numerous flats that surround them.—*Punch.*

ORIGINAL PAPERS

On the Pathology and Treatment of Gonorrhœa.

BY JAMES BLAKE, M.D.

In the December number of the JOURNAL, whilst reviewing Professor Bumpstead's Work on Venereal Diseases, I had occasion to point out what I believe to be the mistaken views he entertains on the pathology of Gonorrhœa, and to expose the injurious treatment which these views naturally lead him to advocate. I now propose to enter more at length into the pathology and treatment of this disease, constituting, as it often does, one of the most annoying that we are called upon to treat, and one which the mistaken views of the profession, as to its pathology and treatment, have made a most fertile field for quackery.

It is now four years since I first published my views on this subject, recommending the local treatment of this disease. (See PACIFIC MEDICAL AND SURGICAL JOURNAL, June 1858.) As a continued experience has tended still further to confirm these views, and as stomachs still continue to be injured by the use of cubebs and copaiva, I shall follow the motto of our JOURNAL, "*Iterum, Iterum,* and even *Iterumque,*" if necessary, by again bringing the subject before the notice of the profession.

The amount of evil that results from our wrong notions on the pathology and treatment of the disease, is not to be measured by the mental anxiety and local mischief which it causes. The principal mischief done by an inflammation of the urethra, is undoubtedly to the stomach, not owing to any metastasis of inflammatory action, or to any very intimate sympathy between the urinary and gastric mucous membranes, but on account of the treatment to which patients with gonorrhœa are generally submitted. More particularly is this the case with scrofulous subjects, as with them, the disease, when mistreated, is much more obstinate. I have met with more than one instance, in which I could trace the first step in the development of phthisis, to derangement of the digestive organs, brought about by the treatment of a gonorrhœa. If, therefore, a method can be found for curing the disease, so as materially to shorten the treatment, to preserve the mucous membrane of the stomach, and one that at the same time is far less painful and annoying, I trust that it will meet with the attention of the profession, although it should originate in California. The time I believe has arrived for as great a change in our ideas of the pathology and treatment of gonorrhœa as has been brought about by the labors of Harrison, Diday, Bassereau, Sigmund and others, in our views on the pathology and treatment of syphilis.

It is now universally admitted that gonorrhœa is nothing but a local disease, an inflammation of the mucous membrane of the urethra, not distinguished from inflammations of other mucous membranes by necessarily having its origin in contagion. When reviewing Professor Bumpstead's work, I observed:

"Putting all preconceived notions out of the question, what have we got to treat? Why, an inflammation of the urethra, an inflammation of a small portion of a mucous membrane, manifesting itself with different degrees of intensity, but generally at first confined to a small surface. What is there, then, in the peculiar anatomical arrangement or physiological functions of the part, which would tend to introduce any modification in the morbid process going on in an inflammation of the urethra, so as to require a different treatment from that of the same process taking place in other mucous membranes? In regard to the anatomical structure, we have instead of an open surface, such as we have in the eye, or a large canal as in the vagina, a small tube, the surface of which it is impossible to see, and the pathological condition of which may to some extent be modified, by the contact or even pressure of its opposed surfaces, when in a state of inflammation, although something of the same sort takes place in the pressure exerted by the ocular and palpebral conjunctiva, particularly when inflamed. Another condition in the anatomical structure of the mucous membrane of the urethra is, that it is situated on a base admitting of considerable expansion and contraction, and this not at all under the influence of the will. The mucous membrane of the digestive apparatus, however, is somewhat analogous to it in this respect, particularly in the pharynx and at the lower part of the rectum; in fact, in each of these places, the membrane is subject to much greater movements and stretching than in the urethra. There is nothing, therefore, in the anatomical arrangement of the urethra which, as far as we can see, should impress any peculiar character on the morbid processes it is subject to in common with other mucous membranes.

"When we come, however, to consider the physiological functions of the canal, we at once meet with an element which is likely to impart a distinctive character to the morbid processes to which it is subject, and which may require some modification of treatment. The passage of so irritating a fluid as the urine over an inflamed mucous membrane, already deprived of the protecting layer of epithelium, cannot fail to produce an amount of irritation which must tend to keep up any inflammatory process that has been once started. In this respect, and in this respect alone, should the inflammation of the urethra run a different course and require a different treatment from that of other inflamed mucous membranes; and, surely, it does not require thirty or forty pages of poly-pharmacy to enable us to get over this difficulty. Such, at least, are the conclusions to which an *a priori* view of the subject would lead, and, fortunately for the stomachs of our patients, these conclusions are fully borne out by experience. Some years ago, when advocating the simple treatment of gonorrhœa, (see PACIFIC MED. AND SUR. JOURNAL for 1858,) we stated, that by the faithful use of cold water injections after urinating, so as to wash away the urine, the disease could almost always be controlled by local means. By this means we bring the inflamed mucous surface of the urethra into much the same condition as that of other mucous membranes, and as might be anticipated, it then yields to much the same treatment.

Burckhardt, in Virchow's Archiv. 1859, when treating of the microscopic and pathological anatomy of the mucous membrane of the urinary organs, observes, that the obstacle to its healing when inflamed, is the constant contact of the urine. In the normal state, the surface of the urethra is well covered by a layer of epithelium, which prevents all contact of the urine with the basement membrane, but when inflamed, the membrane no longer secretes a protective epithelium, but gives rise to an altered secretion, which, not possessing the tenacity of the natural epithelium, is readily washed away, so that a simple abrasion of the skin constantly moistened with urine, there is doubt the urine comes into direct contact with the basement membrane. Under these circumstances, it is not surprising that an inflammation once started in the urethra should have a tendency to perpetuate itself. Were we to keep that a sore might be kept up long enough for the patient to swallow many boxes of capsules, and some few ounces of cubebs.

As regards the origin of the disease by contagion impressing any specific character on it that calls for an exceptional treatment from that of other inflammations, it has been shown, even by the advocates for the specific nature of the disease, that it does not necessarily result from contagion, but that it may arise from any of the various causes which, in other parts, are capable of giving rise to inflammation.

In our review of Dr. Bumpstead's work, we copied from M. Simon's remarks on inflammation, the following paragraph:

> "Waiving for a moment any discussion of what constitutes the undoubted 'specificity' of the first-named two inflammations (chancre and cowpox), it may on good grounds be asked with regard to gonorrhœa, whether it be anything more than a common inflammation of an affected membrane—an inflammation which perhaps first originated, and may with infinite frequency re-originate from local accidents of dirt and lust; and which, having thus originated, shows a more communicable character than some other catarrhal inflammations—than common cold in the head, for instance, only because genitals come into inoculate contact more frequently than the eyes and nose. In the writer's opinion there is ample reason to question the popular impression, that only 'specific' inflammations are communicable; much reason for suspecting it, on the contrary, to be a generic and essential property of inflammation, that its actions (or some of them) are always in their kind to some extent contagious."

M. Simon goes on to show that experiments which had been instituted by Dr. Piringer, in Germany, in which eyes were inoculated with matter taken from different diseased sources, but in all of which inflammation was produced, afford convincing proofs that the contagious nature of the disease cannot be regarded as an evidence of its being specific. He observes:

> "Among ophthalmic surgeons, especially in Germany, there has been a practice of treating the vasculo-nebulous condition of the cornea, which is called pannus, by artificially superinducing an attack of acute ophthalmia; and the agency which has been employed for this purpose, has been the insertion of some contagious secretion. It is obvious that this method of treatment gives extensive opportunities for testing the communicability of various inflammations; and many such experiments are referred to in Dr. Piringer's work on ophthalmia. This author states that in his own experience, including a few cases in which his assistants had acted for him, he had 87 times (*i. e.* operating on 87 eyes of 52 different patients) succeeded in exciting conjunctival inflammation by the contact of an inflammatory product; that the material for the operation was taken—in 29 cases from eyes with infantile ophthalmia, in 11 cases from eyes with gonorrhœal ophthalmia, in 2 cases from the urethra of a boy aged three and a half years, in 40 cases from eyes

with acute decidedly non-gonorrheal ophthalmia, in 2 cases from the eyes of a child with acute palpebral ophthalmia, in 3 cases from eyes with old-standing chronic ophthalmia. The evidence of such experiments becomes (as Dr. Piringer observes) overwhelming, when it is considered that, in performing them the secretion was often carried, as we carry vaccine lymph, over a considerable distance from case to case; and that symptoms of ophthalmia not only always began within a few hours after the operation, but began only in that eye which had received the morbid material. And now, it may be asked in what sense, not involving a *petitio principii*, can the word 'specific' be applied to those various conjunctival inflammations which showed themselves communicable? and if they were not 'specific' but common inflammations, where is the reason for believing that the communicability of gonorrhœa constitutes it a 'specific' disease."

I know not how better to illustrate my views on the pathology of gonorrhœa, than by comparing the inflammations that affect the mucous membranes of the urethra, with those that we meet with in the conjunctiva or the ophthalmiæ. I say inflammations designedly, for there can be no doubt that the disease known as gonorrhœa, presents as many and as marked varieties, as do the different forms of ophthalmia, and although, as in inflammations of the conjuctiva, no well marked line of demarcation can be drawn between the different forms, yet it will be advisable, in our treatment of the disease, to bear in mind the fact, that inflammation in the urethra may put on forms almost as different as we see it assume in the mucous membrane of the eye, and that we can have a catarrhal, a purulent and a gonorrhœal gonorrhœa, the same as we have a catarrhal, a purulent and gonorrhœal ophthalmia. As has already been observed, the contact of the urine with the membrane of the urethra presents a condition which is not met with in the eye, and one which has the effect of favoring the advance of the inflammatory process. Many cases of gonorrhœa, however, are met with which, if left to themselves, do not present, during the whole of their course, more acute signs of inflammation than are seen in the mildest form of catarrhal ophthalmia.

We are unable, in practice, to draw any definite line of division between these different forms of gonorrhœa, and the same is true of the different forms of ophthalmia, but if we once disabuse ourselves of the belief in the specific nature of the disease, we shall not fail to recognize cases which readily arrange themselves under these different types. For instance, most of the cases of the idiopathic form of the disease, will be found presenting analogies with catarrhal inflammation of the conjunctiva. The character of the secretion is much the same, and the remedies it yields to, are somewhat analogous. The purulent form of the disease is frequently the result of the local applications made to the urethra, or it may be caused by infection from women suffering from leucorrhœa, or whilst menstruating; and the acute real gonorrhœa is, I believe, almost always the result of infection, from those already suffering from the same form of the disease.

Such, as a general rule, is the etiology of these different forms; but, in practice, we shall be constantly meeting with cases in which the disease is so much modified by constitution, by previous treatment, and by different hygienic conditions, that it would be difficult to infer from what source they had their origin. Of all the modifying causes which exert an influence on the course of these inflammations of the urethra, there is none which is more marked in its action than the scrofulous diathesis. The same is the case also, in inflammations of the conjunctiva, and probably with inflammations of all the mucous membranes.

As regards the treatment of the disease, it is evident that this must vary according to its character. In the more simple cases, all that is required is, after urinating, to wash out the urethra with cold water, and they will generally get well in three or four days. As they often, however, occur in enfeebled states of the system, a little tincture of iron and quinine will be found to be useful in the greater number of them.

Dr. Chambers, in a clinical lecture on gonorrhœa, lately delivered at the St. Mary's Hospital, London, observes:

> "It is only by the accident of their having other complaints that such patients are admitted into the wards, being usually treated as out-patients; and I am always glad to have them, in order to take the opportunity of teaching you a few important facts connected with the pathology of the disease. The poison of gonorrhœa, as a rule, attaches itself to the urethra (? Ed.] alone; and (like all animal poisons on mucous membranes) has a tendency to run a definite course, to exhaust its virulence by the formation of pus, and so to cure itself. I always, therefore, leave these cases for your instruction; and, if they are recent, you see them get quite well of their own accord; sometimes in four or five days, as happened in the case before us; sometimes after a longer period; but always without any unfavorable symptoms. The fact is that gonorrhœa is naturally, in both male and female, a most mild disease, with power to get well in about a fortnight by the simplest treatment, if only it is not made severe by the folly of the patient or his medical attendant. I consider all primary heroic treatment of urethral discharges a most unjustifiable interference with nature.
>
> "Doubtless a good many patients are tough enough to bear without ill consequences local tampering with urethra; but very frequently you will have stricture and swelled testicle follow, and every now and then you will have a result which will weigh on your conscience for the rest of your lives. You may have the blood of a fellow-creature on your head."—*Lancet, June 15th*, 1861."

We certainly cannot fully agree with Dr. Chambers as to the self-limiting nature of all the forms of the disease, at least without mischief; but his remarks are undoubtedly true of a certain proportion of cases. The fact that the cases brought under his notice, all occurred in patients who entered his wards for other and more serious diseases, and who were, therefore, submitted to rest and a careful diet, will account, to a great extent, for his views as to the self-limiting nature of the disease. Had he taken his cases from among individuals in active life, I am afraid the statistics of his purely expectant method would not have been so favorable.

In the more inflammatory form of the disease, when the secretion is more abundant and the ardor urinæ well marked, all the treatment required will be an injection of a slightly astringent solution every six hours, care being taken to have the urethra washed out after urinating either with the injection, should it be the time for using it, or with cold water, I generally use a solution of the chloride of zinc, two or three grains to the ounce of water. Should it give rise to much pain and irritation, which it sometimes will, as there is a great difference in the susceptibility of the urethra in different subjects, it should at once be weakened. As a general rule, after the use of the injection for twelve or twenty-four hours, the ardor urinæ will be diminished, or will be replaced by a sharper, cutting pain. The injection should now be weakened by the addition of one-third water, and as the discharge diminishes more water should be added, until probably, at the end of forty-eight hours, the discharge will almost have have disappeared, and will have become translucent, the injection having been reduced to one fourth its original strength. I generally advise the continued use of the injection for two or three days after all discharge has disappeared, gradually adding more water, for it must not be forgotten that in a healthy urethra, an injection containing two grains of chloride of zinc to the ounce, will suffice to bring on a gonorrhœa, hence the necessity for weakening it as the urethra assumes its normal condition. When practicable, cold water should be used after urinating, some two or three days after all trace of the disease has gone. As for the internal treatment, it must depend on general principles. If the patient is seen early, no medicine may be required, but if the case comes after the ordinary antiphlogistic starving treatment has been pursued, tonics will always be useful, and a generous diet, avoiding, however, coffee and fermented liquors, except in small quantities. I generally prescribe the tincture of iron.

In the more virulent form of the disease, when the inflammation runs high, and the pain in urinating is very great, the same local treatment must be had recourse to, using, however, warm water for washing out the urethra. It is not uncommon in such cases, for the system to be affected by the local complaint. If there is feverishness, a purge of some neutral salt should be prescribed, to be followed by a mixture containing Spirit mindereri and Vin colchici, to be taken every four hours until the more violent inflammatory symptoms have been subdued. As soon as this is accomplished I prescribe the tincture of iron, and sometimes quinine. Without the administration of tonics, a gleet is very apt to be left after the acute type has subsided. As for the advantage of copaiva and cubebs, it is only in this form of the disease that they can be of any service, and then only when the inflammation has extended to the neck of the bladder, and there is considerable tenesmus. There can be no doubt but that these drugs produce any good effect that may result from their use in gonorrhœa, by changing the character of the urine, so that it no longer proves an irritant when in contact with the inflamed surface of the urethra. When the inflammation is confined to the passage, and it is well washed out after urinating, the urine is not in contact with it sufficiently long to do any harm, but when the inflammation has extended to the neck of the bladder, and there is constant tenesmus and passing of urine, it is then a great advantage to have the urine as little irritating as possible. This result, however, can be attained as well, and much more agreeably, by a few drops of turpentine, as by copaiva and cubebs. Nothing can be more irrational than the administration of these drugs in all forms of this disease. The object to be attained is to prevent the mucous membrane of the urethra being irritated by the urine. This can be accomplished in two ways. In one way, certainly and readily, by washing out the urethra immediately after urinating, and so preventing the contact of the fluid with the inflamed surface long enough to be productive of injury, thus immediately and unerringly attaining the object in view; by the other method we endeavor to arrive at the same end by administering large doses of nauseating and stomach-destroying compounds; and, after all, with no certainty of attaining our object, as Bumpstead complacently tells us that "as a general rule, if they (copaiva and cubebs) are likely to prove successful, their good effects will be apparent in *a fortnight or three weeks* from their commencement, and if by this time the disease continues unabated, they should be omitted, and other means employed to effect a cure."

The following case of the more severe or real gonorrhœal form of the disease will serve to illustrate the treatment I usually adopt:

August 8th, 1856. Mr. J——, æt. 32. Strong and hearty, but has lately been living rather fast. Applied to me on account of a discharge which he had noticed about forty-eight hours before, and which he considered he had contracted about a week since. The discharge was copious, greyish yellow, and not very thick. There was considerable ardor urinæ. The meatus was red, and edges swollen. Pulse somewhat excited, and said he felt badly all over, although this might have been owing to mental causes, as he was a married man. Being of a sanguineous temperament, and in florid health, and as he could not relinquish his daily occupation, I ordered him a mixture, with Spirit Mindereri dr. ii, Vin colchici mxx, every six hours. A tablespoonful of sulphate of magnesia to move the bowels. Regular diet, but to avoid coffee and stimulants. Arg. nit. gr. iij; aquæ oz. vj; for an injection, to be used every four hours. The urethra to be washed out with two or three syringes full of water, each time after urinating. After using the injection twice, in the evening, the discharge had assumed a greener look and was thicker. Ardor urinæ not so great. Injection to be used every six hours, and to be diluted before using in the morning.

August 8. Discharge very much less and becoming clear. Burning pain on urinating, replaced by a sharp cutting pain, not very severe. The injection had been weakened in the morning, by the addition of one-third water. R. Zinc sulph. gr. vi; aquæ oz. iij. To be used as injection every six hours. Discontinue the mixture. Tinct. iron, ten drops three times a day. In the evening, the discharge very slight, almost transparent. Weaken the injection by adding an equal quantity of water.

August 9th. Discharge hardly visible; like white of egg. Injection to be used three times a day, adding water each time.

August 10. No discharge visible; discontinue the injection, but wash out the urethra with water, after urinating, for the next three days. Use local cold baths three times a day. Cured.

August 16th. Mr. J. called on me for advice respecting his wife, who was suffering from the disease, intercourse having taken place two days before he consulted me, and before he was aware that he was diseased. As I could, not under the circumstances, advise the use of the speculum, or even the local application of a solution of caustic, without exciting suspicion, the case was treated by simple astringent injections. These, however, were not employed faithfully, until the inflammation had attacked the deeper parts of the vagina, whence it subsequently extended to the uterus, and the patient was confined to bed for some days.

In using injections for the urethra, as well as in using collyria for the eye, it is desirable sometimes to vary them, and I believe that as a general rule, the more severe the form of the disease, the more caustic should be the injection employed. I am in the habit, in the milder forms of gonorrhœa, of having them made with sulphate of zinc, in the purulent form with chloride of zinc, and in the more virulent cases, with nitrate of silver; never, however, using more than two grains of the latter salt to the oz. of water. In the virulent form of gonorrhœa in the female, I generally apply with a lint mop or sponge a solution of nitrate of silver, ten grains to the oz., over the diseased portion of the mucous membrane, repeating it again in twenty-four hours, if necessary. In the vagina, this must be applied with the speculum.

Before concluding, I would call attention to a form of gonorrhœa which is deserving of more attention than it has received, as although neither contagious nor productive of much pain, it is very obstinate, often resisting treatment for months. It consists of inflammation, and the formation of abscess in some of the mucous crypts that open into the urethra. They become inflamed, suppurate, and discharge their contents, generally into the urethra, although I have sometimes seen them form an abscess which had to be opened from the surface of the penis. Having broken, the urine finds its way into them, and thus prevents their healing; or, if they heal up for a short time under the use of injections, they are certain to open again, and this process may continue for months. The disease should not, except in the loosest sort of a nosological arrangement be styled a gonorrhœa at all. In the analogy drawn between gonorrhœa, and the different forms of ophthalmia, it finds its analogy in ophthalmia tarsi. It can always be recognised by feeling the outside of the urethra, when we discover one or two small hard tumors about the size of peas. They are generally situated near the anterior portion of the urethra, and are extremely obstinate. They can generally be kept from suppuration, either by the injecting of water after urinating, or of some slightly astringent injection, but are extremely hard to cure. Want of space prevents my going further into detail at present with this form of the disease. I have alluded to it to caution those who may try the simple plan of treatment above recommended, for should they happen to meet with such a case, they may be inclined to blame the treatment for their want of success.

In submitting these views to the profession, I am aware that the purely local treatment of the disease is now advocated by many surgeons, but the obstinacy which these inflammations of the urethra so frequently manifest, owing to the irritation produced by the urine on the inflamed mucous membrane, still forces many to have recourse to copaiva and cubebs, in order to render the urine less acrid, and thus remove the source of irritation that is keeping up the disease. The point to which I would more particularly direct the attention is, as to the possibility, except in very rare instances, of effectually and more quickly attaining the same end, by more simple means, and which will not distress the stomachs of our patients. Should the means appear *too simple* to be worthy a trial, oz. j of Tinct. Cocci Cacti, mixed with a pint of water might be employed.

The points I have endeavored to establish in the above remarks are that:

1. Gonorrhœa is a purely local disease with nothing specific about it.

2. That the principal cause of the difficulty experienced in curing it, is the contact of the urine with the inflamed surface of the urethra.

3. That by always washing out the urethra after urinating, we remove the cause that keeps up the inflammation, which then generally can be subdued by purely local means, in two or three days.

4. That there are different forms of gonorrhœa, as there are of ophthalmia.

San Francisco, Feb. 10th, 1862.

Paralysis of the Muscles of the Eye, following a Wound above the Orbit.

BY DAVID WOOSTER, M. D.,
Surgeon 5th Regiment California Volunteers.

Editor Pacific and Medical Journal:—*Dear Sir*:—I have had a rather interesting case, which I wish to put on record in the *Pacific Medical and Surgical Journal*. Private Malone was admitted into Hospital on the 2nd of January, for a bayonet wound. Upon examination, there was found a wound made with the heel of a cutting edge of the bayonet, just above the outer third of the supra-orbital arch of the left eye. There was nothing remarkable in the aspect of the cut; no hemorrhage of consequence. Three stitches, and cold water-dressing constituted the treatment.

Jan. 3d, returned to quarters.

Jan. 6th, presented himself on the sick report with complete ptosis and internal strabismus of left eye. Wound had entirely healed by first intention. No headache, no pain in eye or orbit; pupil obeyed the light like the other. On a more careful examination, it was found that the external, superior, and internal recti, and both the oblique muscles were paralysed. The eye was drawn directly inwards. When he looked towards the right very obliquely, he saw objects single. When I held my hand directly before him, he saw two hands distinctly, one in its true position, and the other to the right of the true. When the right eye was closed, he saw perfectly and at all distances with the left, it being understood all the time that his left eyelid was held up for him by an assistant. There was some extravasation beneath the conjunctiva of the paralysed eye, but it was not inflamed nor sore in the least. I injected two drops of saturated aqueous solution beneath the skin of the upper eyelid without result. The next day, one-twentieth of a grain of strychnine was ordered to be placed on the conjunctiva in the outer angle of the eye. This was repeated from the 12th to the 17th instant daily, without result. At this time the extravasation had disappeared, the patient's health was excellent; but the paralysis of the levator palpabræ, and all the muscles of the globe, but the internal rectus, was complete, as at first. He left on the 17th for San Diego with his company. The patient had no black eye. He does not recollect any blow on the eye. His comrades said nothing of his receiving any blow, except the one that made the cut. Does not the paralysis result from the severing of some filaments from the sixth, fourth and third nerves, accompanying other filaments of the fifth? The function of any given filament is the same in all parts of its course; hence, if a filament be divided *after* it has supplied a muscle, may not the irritation run backwards to the cerebral side of the muscle, and suspend the function of the muscle it supplies?

Camp Union Island, Feb. 11th, 1862.

REVIEWS.

NOTES ON THE SURGERY OF THE CRIMEAN WAR, WITH REMARKS ON THE TREATMENT OF GUNSHOT WOUNDS. By G. R. Macleod, M. D., &c. Philadelphia: Lippencott & Co.

For sale by Messrs. Roman & Co., Montgomery street, San Francisco.

UNFORTUNATELY the efforts of Peace-Societies and Quakers have not yet succeeded in abolishing war; and we believe, should there be any common sense left amongst these amiable enthusiasts, that the events of the last decennium will convince them how useless are all efforts to eradicate any one of the natural impulses of mankind. After all the money spent on peace-lectures, on peace-deputations, and peace-congresses, we doubt if at any previous moment in the history of the world has there been organized so large a number of individuals whose object it is to fight, to wound, and to destroy each other. The production of works on military surgery is the natural result of such a state of things; and there can be no doubt but that our art at least is benefitted by the existence of a war, which exerts so prejudicial an influence on almost every other branch of science.

Amongst the numerous treatises which have been published on military surgery, the work of Dr. Macleod ranks as high as any that have yet appeared. It is founded on the results of the Crimean war, than which there was never probably presented a more favorable occasion for observations in Military Surgery, both on account of the severity of the struggle, and also from the fact, that it afforded a field for comparing the surgical practice of three of the most advanced nations of Europe, and of testing the results of the progress that has been made in our art, since the wars at the beginning of the century. Unfortunately the work is possessed of a still more direct interest to a large number of our readers, from this country being at present engaged in a gigantic struggle, which cannot fail to afford but too many opportunities for the application of the experience gained by our European brethren in recent wars. But, even in times of peace, a work on gunshot wounds in California is not a mere ornament to a surgical library. There are few of our readers who have been practicing for any length of time in this country, who have not met with these accidents, and although they are becoming rare as society gets better organized, yet they are still far too frequent.

The work of Dr. Macleod is eminently practical, and contains the result of a large experience, digested by one who evidently has been able to take every advantage of the field thus opened to him. It is not our intention to attempt to write a review of the work. We shall merely notice one or two points, to which we would more particularly divert the attention of our readers, whether in civil or military practice.

As regards the use of the trephine, Dr. Macleod shows himself a strong advocate for non-interference in injuries of the skull, and our experience has led us fully to justify the position he takes. He remarks:

> "Those who have read with attention the records of campaigns must have often been struck with the numerous instances which are there recounted where men, with gunshot depressed fractures of the skull, have recovered in circumstances which forbade any attention being paid to them. During hurried retreats and forced marches this has often occurred. When privation was added to the absence of all surgical interference, these happy results were the most marked. In Larrey, Guthrie, Ballingall, and in the Indian reports, many illustrations of this are found. Dease, also, long ago, recorded the observation that 'those patients who neglected all precepts, and lived as they pleased, did just as well as those who received the utmost attention;' at which we need not wonder, when we remember in what 'the utmost attention' consisted. Thus it would seem as if severe fatigue, irregular and it might be intemperate diet, are less injurious to men with fracture of the skull than the probings, pickings, and trephinings which form the more orthodox and approved practice. Deputy-Inspector Taylor, in his able report on the wounded of the 29th, in India, after referring to several wonderful recoveries from gunshot depressed fracture of the skull, very appropriately remarks, that he attributed the fortunate results in these cases 'to the system adopted of very cautious meddling with the wound.'"

In the *Medical Times and Gazette*, Mr. Hutchinson has lately brought forward a series of cases in which recovery from fractures took place without any operative procedure, although accompanied with great depression, and every symptom of compression of the brain.

When treating of wounds in the chest, complicated by hemorrhage from the lungs, we believe a too free use of the lancet is advocated, not only by Dr. Macleod, but by the generality of military surgeons. In cases we have met with in this country, in which the patient was] suffering from hemorrhage, we have preferred to let him alone, trusting to nature and medicines to produce syncope early enough, should that be the only means by which the hemorrhage could be arrested When the blood escapes into the cavity of the pleura, or where pneumothorax is produced, either by direct communication with the air through the wound in the parieties of the thorax, or indirectly through the wound in the lung, the most effectual remedy of the hemorrhage is the compression and collapse to which the lung is thus subject, and we certainly think it bad practice in such cases "to open the cavity freely, by enlarging the wound, so as to allow the blood to escape freely, and thus favor the contraction of the lung and the closure of the vessel." The contraction of the lung is certainly more favored by keeping in the effusion and the escaped air, as these after a short time exert an active pressure on the lung, and cause its more complete contraction than can be produced by the mere collapse, resulting from the free admission of the external air. The mechanical displacement of the mediastunum, in cases of pneumothrax and effusion, and the forcing air into the cellular tissue, when emphysema takes place from a wound in the chest, prove that there is at least some active pressure in the cavity, and this must certainly be of advantage in pressing on the surface of the lung, and still more reducing its bulk.

In speaking of compound fractures, Mr. Macleod remarks on the much greater severity of these wounds, owing to the nature of the missiles now used, and when alluding more particularly to the Minie rifle, with its conical ball, he observes:

> "The greater precision of aim, the immensely increased range, the peculiar shape, great force, and unwonted motion imparted by the new rifles to their conical balls, have introduced into the prognosis of gunshot wounds an element of the utmost importance. I am not prepared to say whether the great destruction of the soft and hard tissues which these balls occasion results from their wedgelike shape, immense force and velocity, or the revolving motion, or from a combination of all these causes together; but of one thing I am convinced, that their use has changed the bearing of many points which fall to be considered by the surgeon in the field. The severity of the primary action on the part struck, and especially the aggravated evils which follow their wounds, combined to exercise a most prejudicial influence on the surgery of the war, to which due weight has never been given. Immense comminution of bone has been their most prominent effect. The amount of laceration of the soft parts seems to depend on the distance at which the missile is fired.
>
> "The wide-spread destruction of the bone often renders consolidation impossible, so that amputation has more frequently to be had recourse to, and the distance at the trunk at which that operation has to be performed being diminished by the same causes, the resulting mortality has been greatly increased."

The work is one which contains a vast amount of practical information, not only indispensable to the surgeon on the field, but in the highest degree useful to all who are liable to be called upon to practice any branch of operative surgery, and who in this country is not? J. B.

* * *

THE PATIENT'S OPINION OF DOCTORS.—"We delight in doctors, who are the best friends of frail humanity, and the least quarrelsome fellows you can meet with anywhere, except when they wrangle among themselves. No other class of men enjoy life with so keen a relish, or as indefatigable in their efforts to promote the happiness and welfare of mankind. They are, too—we say it in all seriousness—the most disinterested of mortals; for, although the disease is their harvest, we find them always true and faithful monitors, warning us against the evil habits that tend to the destruction of health; and if we were wise enough to profit by their maxims, to live rationally, and to avoid all manner of excess, few would be the fees accruing to the successors of Machaon and Podalirius."—*Meditations on Dyspepsia, in Blackwood for October.*

THE TRUE PHYSICIAN.—To the true Physician there is an inexpressible sanctity in the sick-chamber. At its threshold the more human passions quit their hold on his heart. Love there would be profanation. Even the grief permitted to others he must put aside. He must enter that room—a calm intelligence. He is disabled for his mission if he suffer aught to obscure the keen, quiet, glance of his science. Age or youth, beauty or deformity, innocence or guilt, merge their distinctions in one common attribute—human suffering appealing to human skill. Woe to the household in which the trusted healer feels not on his conscience the solemn obligations of his glorious art.—*Sir E. B. Lytton, in "A Strange Story."*

SYDNEY SMITH ON FASHIONABLE PHYSICIANS.—"There is always some man of whom the human viscera stands in greater dread than of any other person, who is supposed, for the time being, to be the only person who can dart his pill into their inmost recesses; and bind them, in Medical recognizance, to assimilate and digest. In the Trojan War, Polidarius and Machaon were what Dr. Baillie and Sir Henry Halford now (1818) are,—they had the fashionable practice in the Greek camp; and, in all probability, received many a guinea from Agamemnon dear to Jove, and Nestor, the tamer of horses."

THE manuscripts of both the long expected volumes, the revised *United States Pharmacopœia* and the new *British Pharmacopœia*, are reported as approaching completion. The labor on each is immense, not only in compiling, but in reconciling varying opinions. The latter work will probably be issued about the end of this year; the former certainly not before the early part of the next.

EDITOR'S TABLE.

Small-Pox and Vaccination.

The fact that small-pox has appeared to some slight extent in the city, although not at all calculated to excite alarm, should, however, lead our readers to take the only rational precaution that is necessary against the disease, by advising the families they are attending to be generally re-vaccinated. The necessity for a repetition of this simple operation, in those who have already been vaccinated, and who even have good marks to show for it, is rendered obvious, not only from our own experience, but from some interesting statistics lately published by the Prussian Government, in relation to re-vaccination in the Prussian army.

"During the year 1860, 69,096 individuals were either vaccinated or re-vaccinated. Of this number 57,525 exhibited distinct cicatrices from former vaccinations, and 7,420 indistinct cicatrices, while 4,151 showed no marks at all. The vaccination went through its regular course in 44,193, was irregular in 8,256, and was without result in 16,647. These last, vaccinated again, gave 5,577 examples of success and 11,650 failures. During the year there occurred among the above soldiers who were successfully re-vaccinated, and others who had been so in former years, six cases of varicella and one of varioloid, but no case of variola was met with. Thus, during the year 1860, of 69,096 re-vaccinations, 49,770 proved successful, *i. e.*, 72 per cent. In the entire army there occurred 44 cases of pock during 1860—viz., varicella, 23 varioloid, and 4 variola. Of these, 3 of the cases of varicella, 14 of varioloid, and 3 of variola occurred in persons who had not been re-vaccinated; 8 of varicella, 8 of varioloid, and 1 of variola occurred in those who had been re-vaccinated without effect; and the remaining 7, as stated above, occurred in those who had been re-vaccinated with success. Three of the cases of variola died."—*Medical Times and Gazette, from Preuss. Med. Zeitung.*

The number of successful re-vaccinations, viz., seventy-two per cent. affords a strong evidence of the necessity for advising it, as probably the larger number of cases, in which vaccination took and ran its regular course, would have been capable of taking the small-pox, had they been exposed to it. The protection afforded by vaccination is evident, for of the forty-four cases of varioloid and small-pox that occurred in the army during the year, only seven occurred amongst the forty-nine thousand who had been successfully re-vaccinated, and not one of these was the real small-pox, all the cases being merely varioloid. Were the whole of the population of San Francisco properly vaccinated or re-vaccinated, the whole number of cases that, according to the above statistics, would fall to our share, would be but fourteen, and these only of the milder form of the disease. We fear that the deaths during the present epidemic have already exceeded this number, and simply because people will not take the precaution to be re-vaccinated.

HEALTH OF SAN FRANCISCO FOR JANUARY.—During the last month, there has been 175 deaths in the city, a decided decrease as compared with December. This is more particularly the case in regard to epidemic diseases, for whilst during the month of December, the deaths from typhoid fever amounted to 11, and from diphtheria 7, last month these diseases have taken off but 6 and 2 respectively. In 115 interments in the Lone Mountain Cemetery, 26 or 22·5 per cent. are entered as having died of phthisis. There can be no doubt but that this great mortality from consumption is an evidence of the deleterious influence exercised by cold and moisture on the progress of the disease. During a twelve years' residence in the State, we have not seen so bad a winter for consumptive patients, and it would be difficult to realise the idea of the Italian winter of California, were the present one to be taken as a specimen. The mortality amongst children has been considerably diminished, for whilst last month more than one-third of the mortality took place in children under three years of age, this month only about 30 per cent. are entered as under that age. Four deaths are entered as having been caused by small-pox.

BRIGADIER-SURGEONS FOR CALIFORNIA. — Two-Brigadier-Surgeons, Dr. Christian, of Pennsylvania, and Dr. Egbert, of New Jersey, have lately been sent out by the Secretary of War. We understand that the duties of this new class of medical officers are to have a general superintendence of the medical department of a brigade, and to be attached to the staff, so as to advise the commander as to general hygienic arrangements concerning the troops. Owing to the manner in which the troops are scattered over the country in this State, we hardly know what duties these officers can be called upon to perform, except as surgeons to distinct posts. Every regiment has its surgeon, whose place is at the head-quarters of the regiment, and the various detached companies are generally looked after by one of the assistant-surgeons, or by some medical man generally in the neighborhood who attends the post, for a small remuneration. In these times of economy, we think the Government might have saved the $2,000 or $3,000 that it has cost to send these gentlemen to California, as surgeons undoubtedly could have been found in the State competent to fill the position, and whose knowledge of the climate and topography of the country might have given them advantages as regards the hygienic requirements for our troops, which strangers cannot be supposed to possess.

WE understand that the office of Visiting Physician to the U. S. Marine Hospital at this city has been abolished. For the future, there will be but one physician, who will reside at the Hospital. This post is now filled by Dr. Hastings, the former Visiting Physician.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late JOHN W. FRANCIS.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from emiinent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the SUMMARY OF MEDICAL SCIENCES will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "THE EPITOME"—and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. WELLS, M. D.—DEAR SIR: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage and can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE

Pacific Medical and Surgical Journal.

SELECTIONS.

Treatment of Fractures by Plaster of Paris Splints.

Dr. Jas. L. Little, Resident Surgeon to New York Hospital, highly extols Plaster of Paris splints in the treatment of fractures. The advantages of this apparatus are, he states, "its facility of application, and its perfect adaptation to the limb, being borne by the patient better than any other form of apparatus. Although we have applied it more than twenty times, and in every case directly against the integument, yet in no instance has it given rise to any undue pressure over the malleoli or heel—points which are apt to trouble the surgeon considerably. Another interesting feature may be stated, that it has never produced any excoriations, but, on the contrary, in several instances where it has been applied over denuded surfaces, it has apparently exercised a healing effect.

"Its advantages over the starch bandage are its rapidity of drying and hardening, the plaster taking about five minutes 'to set,' *while being held by the surgeon in its proper position*; the starch apparatus requiring several days to dry unless artificial heat is applied. Another advantage is, that the limb can be inspected daily if necessary, without removing all the apparatus. It, therefore, can be applied much earlier than we have been in the habit of resorting to the starch bandage. It may be well to state, starch apparatus has been generally used in the New York Hospital only after the fracture has become tolerably firm, since in several instances where it has been applied early in the treatment, marked deformity has resulted. But the plaster of Paris casing allows the anterior surface of the limb to be exposed, and any displacement can consequently be readily detected.

"Its advantage over the gutta percha is its great *porosity*, keeping the limb perfectly dry without confining the perspiration, and thus doing away with one cause of irritation and excoriation. It does not require padding like the gutta percha, and it is much cheaper, an important item in hospital practice.

"The mode of application to the leg is as follows: The limb is first shaven or slightly oiled; a piece of old coarse washed muslin is next selected of a size so that when folded about four thicknesses it is wide enough to envelop more than half of the circumference of the limb, and long enough to extend from a little below the under surface of the knee to about five inches below the heel. The solution of the plaster is then to be prepared. Fine, well dried, white plaster had better be selected, and before using, a small portion should be mixed with water in a spoon and allowed 'to set' with a view of ascertaining the length of time requisite for that process. If it is over five minutes, a small quantity of common salt had better be dissolved in the water before adding the plaster. The more salt added, the sooner will the plaster 'set.' If delay be necessary, the addition of a few drops of carpenter's glue or mucilage will subserve that end. Equal parts of water and plaster are the best proportions. The plaster is sprinkled in the water and gradually mixed with it. The cloth, unfolded, is then immersed in the solution and well saturated; it is then to be quickly folded as before arranged, and laid on a flat surface, such as a board or a table, and smoothed once or twice with the hand in order to remove any irregularities of its surface, and then, with the help of an assistant, applied to the posterior surface of the limb. The portion extending below the heel is turned up on the sole of the foot, and the sides folded over the dorsum and a fold made at the ankle at either side, and a roller bandage applied pretty firmly over all. The limb is then held in a proper position (extension being made if necessary by the surgeon), until the plaster becomes hard. The time required in preparing the cloth, mixing the plaster, and applying the casing to the limb, need not take more than fifteen minutes. After the plaster is firm and the bandage removed, we will have a solid plaster of Paris case partially enveloping the limb, leaving a portion of its anterior surface exposed to view. If any swelling occurs evaporating lotions can be applied to the exposed surface, and we can always easily determine the relation of the fractured ends. If necessary, an anterior splint, made of the same material, can be applied, and then both bound together with adhesive plaster, and if desirable, a roller bandage over all. If the anterior splint is not used, two or three strips of adhesive plaster, one inch wide, or bands of any kind, may be applied around the casing, and will serve to keep it firmly adjusted to the limb. Thus applied, we have a most beautiful splint, partially enveloping the limb, making equal pressure, light and allowing the patient to change his position in bed, or to sit up in a chair, or go about on crutches; and a splint which can be easily made in any place where plaster is to be had.

"This mode of dressing may be applied with great advantage in most cases of fractures of the tibia and fibula. In oblique fractures of the tibia with the projection of the superior fragment, it is well known how difficult it is to overcome the deformity; with the plaster of Paris splint, however, the results have been all that could be desired. After extension of the limb on the part of an assistant for the sake of bringing the fragments into perfect apposition, and while thus held, the plaster splint should be applied and allowed to harden.

"The limb is thus perfectly immovable. A strip of two or three thicknesses of muslin, about three inches wide, saturated with the plaster, may be applied transversely, if necessary, over the upper fragment, so as to bind it down in position. The cases in which this mode of dressing is not applicable, are those of fracture of the fibula with rupture of the internal lateral ligament, or, what is more common, a chipping off a portion of the internal malleolus with the turning of the foot outwards. Where the deformity is considerable it cannot always be overcome at once, but requires steady pressure, with properly arranged pads, and the side splints, to bring out that result. This effected, to a certain extent, the plaster apparatus may be applied with advantage. In cases of fracture of the fibula, without any displacement of the foot, it may be applied early in the treatment; upon the entire subsidence of the swelling it will become necessary to apply a new one. This second dressing in most cases will be sufficient for the remaining treatment.

"In fractures about the knee-joint, and in cases of synovitis, where a posterior splint or knee-cap is needed in order to keep the limb in a straight or semi-flexed position, this mode of forming a splint can be made use of and answers better than the gutta-percha. We have applied it to one case of spnovitis after the acute symptoms had been subdued by the means of extension and counter-irritation, and it formed a very good posterior splint. In fractures of the tarsal bones it may likewise be used with advantage. Here it should be long enough to envelop the foot as far up as the toes.

"Two cases of fracture of the astragalus have been treated in this manner with good results.

"For fractures of the lower jaw, it can be made use of to construct a splint in the usual manner.

"In fractures of the neck of the humerus, where a shoulder splint, as recommended by Hamilton, is necessary, this may be mode use of; it would make a much better splint than the gutta percha, and it would fit the shoulder more accurately than any wooden splint that could be made.

"In fractures of the shaft of the bone it may also be used. It should be long enough to extend from the shoulder to the hand, and applied to the outside of the limb, the limb being flexed to a right angle, and extension being made so as to keep the fragments in position until the plaster 'sets.' If necessary, a small splint made of the same material can be applied to the inner side of the arm, and both bound together with a bandage. The limb, of course, is to be placed in a sling.

"For fractures of the base of the condyles, and other fractures in the vicinity of and involving the elbow-joint, which require the arm to be kept in a flexed condition, this is decidedly the best mode of dressing. For this purpose angular splints made of tin, gutta percha, or pasteboard, are commonly used, and all require some little time for their construction. The plaster of Paris splint can be made in five minutes, and will fit itself to the inequalities of the arm more accurately than any other.

"Although we have no opportunity of witnessing its application in cases of club-foot, we may venture an opinion that no better shoe could be constructed, and none which would fulfil more indications after tenotomy has been performed, than by these accurate mouldings to the limb. During and for a while after the application of this dressing, due attention should be paid to adjustment of the foot. The gutta percha shoe, which is more troublesome to make, and certainly in many respects not as good, might thus be dispensed with."

Dr. L. recommends this mode of dressing in all instances where dispatch is important. "Many valuable lives," he remarks, "perhaps might be saved, and much suffering certainly alleviated upon the battle-field, by a resort to this expedient. No great amount of surgical skill is requisite for its use, and not much room need be taken up in the packing away of the plaster in its dry state, proper care, of course, being taken to prevent the contact of moisture. Again, the art of its application, if such we may style it, can be readily communicated to any one of ordinary intelligence, such, for instance as those supposed to compose an ambulance corps. Patients with limbs dressed in this manner might be transported comfortably."—*American Journal from American Times.*

AT a meeting of the Buffalo Medical and Surgical Association, Professor Rochester reported 137 cases of re-vaccination. More than half the individuals, he stated, were found susceptible of the disease.

On the Effects of Residence in Elevated Regions.

We copy the following article from the *Edinburg Medical Journal*, where it appears as a review of a work published by Dr. Jourdanet on the Effects of Residence in Elevated Regions. The subject is one which will be interesting to many in this State, and on the other side of the Sierra, who have to heal disease in analogous localities:

The most novel and most interesting chapters in Dr. Jourdanet's book are those in which he considers the pathology of the altitudes. His general views as to the effect of permanent residence at such an elevation as Mexico may be summed up in a few words: In consequence of the deficient supply of oxygen the blood is imperfectly aerated; hence its constitution is altered, and the process of sanguification is interfered with; the nutrition of all the organs of the body is impaired; there is a great tendency to congestion of various internal organs; and the blood is not sufficiently stimulated to produce the proper excitement of the nervous system.

We may briefly allude to some of the special diseases most frequently met with.

Pneumonia is of very common occurrence in Mexico, in consequence of the frequent and sudden chills to which residents are exposed, and which are apt to be but little attended to, as the clearness of the atmosphere, and the agreeable feeling of the temperature, remove all apprehension from this cause. The disease is characterized by the very great tendency to prostration which manifests itself from an early period. When a long residence in a rarefied atmosphere has weakened the constitution, there is but little power of reaction, and the mortality is very high. Symptoms of asphyxia very readily manifest themselves, even when the hepatized portion of the lung is of very limited extent. The individual, previous to the occurrence of the disease, had barely enough of oxygen to maintain him in health; hence even the cutting off a small portion of this supply is attended with a fatal result. The treatment of the disease must be regulated by these considerations. Depletion is very badly borne, and a recourse must be had to stimulants from an early period of the disease. The prophylactic means recommended consist in protecting the skin from evaporation and from the action of cold air; a sudden transition from the sunshine of the streets into the shade, or into cold apartments, should be especially avoided.

What is true of pneumonia is true of all the other inflammatory disorders. They do not generally last long, but tend speedily to an adynamic condition; the symptoms of reaction are never violent, except when the disease is transitory.

Dysentery, though common in Mexico, is less severe than when met with on the neighboring coast. This merely depends on the lower temperature of the elevated region, the severity of the disease being generally proportional to the heat of the locality. It must, however, be observed, that though this is the case, it by no means follows that a journey to Mexico is to be recommended to persons who have contracted dysentery in the low country. On the contrary, such a change of residence is invariably accompanied with a marked aggravation of the symptoms, and is very often attended with a fatal result. Indeed, Dr. Jourdanet says that to send to the high altitudes a person suffering from acute dysentery, is almost equivalent to signing his death-warrant.

Acute rheumatism is frequent; it is as violent and lasts as long as it does on the level of the sea, but differs from ordinary inflammatory disorders in not producing a typhoid condition. Cardiac complications often occur; and it is worthy of notice, that diseases of the heart run a more rapid course than they do on the level of the sea. Dr. Jourdanet relates the case of a gentleman who had resided two years in Mexico, and who consulted, in 1854, on account of slight pain in the precordial region; percussion indicated no enlargement of the heart, but, on auscultation, a blowing murmur was heard with the second sound. The disease made rapid progress; the symptoms became alarmingly severe, and before the end of the year the cardiac dulness was considerably extended, and the murmur had assumed a rough and rasping character. Dr. Jourdanet therefor recommended his patient to return to Europe, and he did so in May 1855. A short residence in Paris worked wonders; the patient, who while in Mexico could not make the slightest exertion without bringing on violent and painful palpitations, was now abie to walk quickly without inconvenience. In fact, his recovery appeared so complete, that strongly against his doctor's advice he returned to Mexico. A few days after his arrival, symptoms of his disease again manifested themselves; the action of the heart became violent and irregular; a short dry cough constantly annoyed him, and in a few days he was unable to move about. Accordingly, the patient again returned to France, and regained his health so well as to be able to marry and engage in active life.

The ordinary fever met with in the plain of Anahuac is typhus, as it occurs in England and America. Typhoid fever, on the other hand, is rare; numerous post-mortem examinations have testified to the rarity of an intestinal lesion. Although from the moisture of the soil, and the great power of the sun, it might be supposed that miasmatic fevers would be frequent, this is found not to be the case. Intermittent symptoms do indeed sometimes manifest themselves, but they do not yield to quinine, and enlargements of the spleen are rare; Dr. Jourdanet ascribes this to the circumstance, that though the solar heat would be quite sufficient to engender deleterious emanations during the day, the temperature of the nights is not sufficient to develop the species of fermentation which sets them free. Besides, what little there is does not find in the atmosphere sufficient moisture for its condensation, and the rarity of the air is not favorable to its absorption by the lungs or by the skin.

One of the most common affections in Mexico is vertigo. The individual affected suddenly loses his equilibrium; he has a sensation as if the ground were trembling under his feet. Dr. Jourdanet remarked, that in such cases the face and the conjunctiva were unusually pale, and that the pupil was freely movable, being neither dilated or contracted. These attacks, which sometimes assume an epidemic character, are most frequent from the end of February to the end of May. At this time the heat is greatest, the dryness of the air is extreme, and the lower strata of the atmosphere are still further rarefied by the intense heat of the ground. The respiration is more imperfect at this season than at any other period, and it is to this cause that Dr. Jourdanet ascribes the frequency of vertigo.

Cerebral apoplexy is also frequent in Mexico; and it is worthy of remark, that the persons attacked are mostly of feeble constitution and in an anæmic condition. Dr. Jourdanet's explanation of this frequency is as follows: "The habitual anæmia deprives the brain of its normal excitation. The organ enfeebled for the accomplishment of its physiological functions is still less able to react against the various engorgements which exceptional circumstances in the temperature or the climate may at any moment induce. The stream of blood thus retarded presses against and bursts the walls of the vessels."

Perhaps the most important chapter in Dr. Jourdanet's work is that on pulmonary phthisis. Phthisis is rare at great altitudes. This is not due to the latitude of the place, but to its elevation; for Mexico and Puebla, which are almost free from consumption, are on the same parallel as Vera Cruz, where it is not uncommon. Not only is this the case, but the condition of persons who are already suffering from the disease is greatly ameliorated by a residence in the high districts. This effect Dr. Jourdanet ascribes to the diminished quantity of oxygen in the rarefied air. He ascribes pulmonary phthisis to an imperfect elaboration of respiration aliments, and especially of sugar. Under these circumstances, rarefied air acts as a respiratory low diet, and hence the impediment to the development or progress of the malady. We are not prepared to go along with Dr. Jourdanet in all his theoretical conclusions; but his facts are most valuable, and indicate that an elevated locality may be a very important therapeutic agent in the treatment of the disease. Dr. Jourdanet very properly observes, that if, as he has shown, a residence in rarefied air is advantageous to the phthisical, no good can be anticipated in such cases from the use of compressed air baths.

We can cordially recommend Dr. Jourdanet's work as that of a well-informed and intelligent physician, and as containing much valuable matter not to be met elsewhere.

* * *

Case of Rupture of the Bladder, Treated by Abdominal Section.

THE *Medical and Surgical Reporter* of Philadelphia reports a case in which the abdomen was opened, and the urine effused, from rupture of the bladder into the peritonical cavity, sponged out. The case occurred in the practice of Dr. A. G. Walter, Pittsburg, Va.

John Bohland, aged 22, was kicked, whilst fighting, in the lower part of the abdomen, and presented when seen by Dr. Walter a few hours afterwards, unmistakeable symptoms of rupture on the bladder, and effusion of urine into the cavity of the peritoneum, the quantity of urine being probably considerable, as the patient had not passed any for six hours after the accident. Ten hours after the receipt of the injury, assisted by Dr. Guenste, chloroformisation having been induced, the abdomen was opened in the linea alba by an incision, beginning one inch below the umbilicus, and terminating about one inch above the pubes to the extent of six inches. The intestines were found inflated, their peritoneal coat, as well as that lining the interior of the abdominal walls already showing evident marks of congestion. A soft sponge then was cautiously introduced into the abdomen, with which the extravasated fluid, consisting of urine and blood, was carefully removed from the pelvis, and between the convolutions of the bowels, amounting to near a pint. While thus inspecting the abdominal cavity, a rent was found in the fundus of the bladder of two inches extent, through which the urine had escaped. The cavity of the abdomen being cleansed of the noxious agent, the wound of the bladder was left to itself, as no urine was seen to escape from it. The abdominal wound was closed by strong Carlsbad needles secured with silver wire (only skin and fascia being stitched, while the peritoneum was left untouched). A flannel bandage encircled the whole abdomen. The patient awakening out of the anæsthetic sleep, felt relieved of pain and desire to urinate, so distressing before the operation. Vomiting did not return. Opium again in one grain doses every hour, was ordered. Abstinence of drink and perfect quietude of body, with retention of the catheter, were strictly insisted upon. He soon began to doze, had a comfortable night, was free of pain the next morning, complaining only of soreness of the abdomen, without tympanites, sickness, or calls to urinate, thirst less urgent. The treatment was continued; for drinks, iced barley water only in very small quantities, with pieces of ice being allowed, no unpleasant symptom followed, urine in small quantities, but free from the admixture of blood passing by the catheter. On the third day, the intervals between the doses of opium were lengthened to two hours, on the fifth to three, and thus gradually decreased, as all signs of inflammation had passed, the pulse though yet quick, having lost its wiry condition. At the expiration of a week, the abdominal wound appeared to be closed by first intention, the stitches however were not removed till a week later. The gum elastic catheter was replaced by a new one every two days, and was not withdrawn for two weeks after the injury had been received, and then only for a short time. At the expiration of two weeks, with the absence of all pain and tenderness, opium was omitted. The intestines were relieved by warm water injections on the tenth day, when mild nourishment was ordered. Between the second and third week the catheter was permanently withdrawn, and only introduced every four hours for the evacuation of the urine. After the third week, the patient left his bed, feeling himself restored to health, and drawing off his urine himself every four hours. He has remained well ever since, working at his trade, and feeling no impediment in his urinary organs.

On a New Mode of Administering Chloroform.

At a meeting of the Edinburgh Obstetrical Society the following method of administering chloroform was described by Professor Simpson. We think it a decided improvement, as the quantity administered is certainly more directly under the command of the operator than by the method now generally in use.

Professor Simpson stated, that for some time past he had used chloroform in a manner somewhat different from that in which he was formerly in the habit of administering, and recommending it to be administered; and he believed that by the new method the patient was more rapidly anæsthetized, and at the same time a great saving was effected in the quantity of the drug lost by evaporation when it was administered in this manner, for the patient inhaled it at the moment when it was poured on the cloth, and inhaled it mixed with a sufficient quantity of air, which was easily inspired through a single layer of any ordinary napkin. Dr. Moir had been long in the habit of administering chloroform in this way upon a handkerchief thrown over the patient's face. He (Professor Simpson) believed it would add to the safety with which the drug might be employed, to administer it in the manner he had described. He had often feared lest the lives of patients should be sacrificed by the careless manner in which, in particular, students and young practitioners sometimes applied the damp folded cloth over the patient's face, without admitting a sufficient supply of air; and he had no doubt that many of the deaths attributed to chloroform were due only to the improper administration of it, and were, consequently, no more chargeable on the drug itself, than were the many deaths resulting from accidental overdoses of opium, &c. But the dangers from careless and improper administration would be diminished if there were never placed over the patient's nose and mouth more than a single layer of cloth, moistened with a few drops of the fluid. The first patient to whom he had administered it in this manner had been chloroformed several times previously, and had never gone to sleep till an ounce and a half or two ounces of the fluid had been employed; but when administered drop by drop on a single layer of a thin towel, one drachm had sufficed to induce the most profound sleep. It had thus all the advantages that had ever been claimed for the complicated apparatus which some medical men were still in the habit of using. There was only one precaution to be attended to in employing chloroform in this manner, viz., care should be taken to anoint the lips and nose of the patient beforehand with oil or ointment, to prevent the skin from being injured by the contact of the fluid that resulted from the close application of the wetted towel to the patient's face.

Dr. Peter Young stated that he had recently administered chloroform, in the manner described by Professor Simpson, to a patient in labor, and that he had kept her asleep for ten hours with only two and a half ounces of the drug.

Dr. Keiller remarked upon the difficulty that was occasionally experienced in putting some patients to sleep, and stated that a hysterical patient then in his ward had used an enormous quantity of chloroform before she could be brought under its influence. But he had no doubt that it had been administered in the manner Dr. Simpson had just proposed to do, a much smaller quantity would hrve sufficed; and he might state that when he himself suffered from severe earache on one occasion, he had put one or two drops of chloroform on cotton wadding and held it into his mouth, and a very few deep inspirations served to relieve the pain. He (Dr. Keiller) had since then frequently applied chloroform very advantageously in this way in cases of tic and other neuralgic affections.

Dr. Alex. R. Simpson had administered chloroform in the manner under discussion in a considerable number of cases, and always with the result that a great saving was effected in the quantity employed. He had the day previously kept a boy, on whom Mr. Edwards was operating, asleep for more than half an hour with between two and three drachms of chloroform, and some of the fluid first poured out was lost in consequence of the resistance made by the patient to its administration.—*Edinburgh Medical Journal.*

AMONG the many remedies employed to counteract that condition of the system known as scrofula, the arseniate of soda is considered by M. Bouchut as the most effective. We quote the following from the *British American Journal:*

"Arsenic," says M. Bouchut, "is one of the best of our tonics, and it is a powerful succedaneum of iron, quinine, or cod-liver oil, and for this reason it is efficacious in most organic and nervous cachexiæ when the resulting disorders have not become too considerable or too inveterate. In scrofulous cachexia it is an excellent remedy, children under its influence generally recovering their strength color and appetite. But this is only an amelioration, for in cases in which it effects a *cure* the cachectic state has not yet been attained, and the local manifestation is confined to the skin, mucous membranes, and the glands. Beyond these, in diseases of the bone and in tuberculosis, it is only a good palliative. In scrofulous coryva, ulceration of the skin, suppurative adenitis, otorrhœa, leucorrhœa, or perforations of the velum, the relief obtained is prompt." It may be given in quinine or in simple syrup, and M. Bouchut recommends doses of 1-60th grain of arsenic to commence with, gradually augmenting the quantity."

On the Elimination of Mercury from the System.

Dr. Schneider has recently made some researches on the elimination of mercury during and after a mercurial treatment, which have given the following results: During the internal administration of such preparations, the electrolytic examination of the urine shows always traces of mercury, but the quantities are so small that the amount of urine discharged within twenty-four hours is often not sufficient for a satisfactory result, and the metal must be searched for in the whole of the urine discharged within three to six days. Traces of mercury were also found in the urine of a patient who had not taken it internally, but had been treated with mercurial ointment. The elimination of the drug by the urine lasts for some time after the mercurial treatment has been discontinued. In the first week afterwards it is invariably found, and in two cases it was even discovered in the fourth and sixth week afterwards. After six weeks Dr. Schneider has never succeeded in discovering traces of mercury by eloctrolysis. The elimination is not promoted by the administration of iodide of potassium, as the quantity of mercury contained in the urine was not at all increased, but rather diminished, when that drug was given; and if it was taken at the end of the mercurial treatment, mercury did not re-appear in the system, probably because nothing was left behind. One patient who had suffered from syphilis for five years, and had been three times treated with mercury (the last time very energetically, having used twenty drachms of ointment, equivalent to more than 120 grains of mercury,) died of pericarditis two months after the third course, and Dr. Schneider could therefore search for mercury in the internal organs. The result was that the bones, the brain, and the spleen, which were generally believed to retain mercury for years, did not contain a trace of it, while the kidney showed an infinitesimal quantity of the metal, the result of the examination of the liver being doubtful. It is, therefore, evident that mercury entirely disappears from the system a short time after the end of treatment, and cannot, therefore, cause secondary syphilitic symptoms; nor can it be eliminated from the system years after the treatment by Dr. Caplin's electro-chemical baths. In two cases of hydrargyrosis considerable quantities of mercury were discovered in the urine, and in one of them, which ended fatally, also in the internal organs, especially in the liver. Urine which contains mercury does not necessarily contain albumen also; but in the two last mentioned cases of hydrargyrosis there was albumen in the urine. The saliva which is collected during a mercurial treatment does not contain any mercury. The quantity of mercury which is eliminated after the end of the treatment amounts to about one fourth of that actually administered.—*London Medical Times.*

Mal-practice Suit.—In the case of Farrell *vs.* Caldwell, recently tried in the Superior Court of Ohio, before Judge McAlister, a verdict has just been rendered against the defendant, and the damages fixed at ten thousand dollars. The defendant was Dr. F. A. Caldwell, a notorious oculist and aurist of that city, who undertook "to remove an imperfection of the left eye, a scar caused by small-pox," of a domestic in one of the hotels. She paid him $30, the sum he demanded in advance, for the operation. The result was the loss of the left eye entirely, and the destruction of sight in the other, by the introductory drops into it.—*Cincinnati Lancet and Observer.*

MISCELLANY.

Antiquity of the Human Race.

UNTIL very recently, zoologists as well as geologists were agreed that man did not exist before the Deluge. Some of the most eminent men of science even contend that, at that period, when the extinct races of elephants, hippopotami, and rhinoceros, together with tigers, leopards, and hyenas, lived in this quarter of the globe, man could not possibly have existed. Thus Cuvier. in his treaties on the revolutions of the globe, said, it was settled that fossil human bones had no existence; and it is true that those which had been at first described as of gigantic human beings, were soon recognized to be remains of mammooths and other animals. But even then the question was not so entirely settled as the great French anatomist believed it to be. It was well known that, in ravines and excavations of rocks which had by some catastrophe become inaccessible to men and which had not been visited for ages, human bones were found, together with those of antediluvian bears, hyenas, hippopotami, buffaloes, etc., and in some places they were even enveloped and covered with stalactites. This was explained by the supposition that human remains had only come into those caves by some accident within our period of creation, long after the animal remains had been buried in it; but this was merely an hypothesis, and could not but be open to objection.

Recent discoveries can no longer leave any doubt on the philosophical mind that man really co-existed with the great mammalia of the diluvium; and although there are still those who deny this conclusion, the most eminent men of science have become converted to this theory. That the question has at last been cleared up, is solely to be ascribed to the researches of M. Boucher, who, during his whole life-time, has worked at the elucidation of this problem, which he studied as far back as 1805, when at Marseilles, and visiting Roland's grotto, in which he searched for fossil human bones. He soon came to the conclusion that man had existed at a much earlier period than is generally supposed; in the first instance, he thought that the tradition everywhere extant of a human race destroyed by the flood could not possibly be without foundation. In that period there existed mammalia closely related to man, which could only live under the same atmospherical conditions as he, so that the earth was certainly inhabitable for mankind. He also found traces of man wherever the remains of the larger mammalia were found, and where no fossil remains of our species could be discovered. M. Boucher believed that they had been either destroyed or overlooked.

After long study the indefatigable zeal of M. Boucher was at last rewarded. He found in certain layers of the earth a few flints, which had evidently been shaped by the human hand. Although this was, to M. Boucher's mind a further proof of his theory, the learned world refused to accept it as such, and it was objected to him that these implements were not at all like those carefully-shaped and well-sharpened stone-hatchets which are not unfrequently found in the most ancient of tombs. M. Boucher then no longer sought allies in the learned world, but amongst the working men in the stone-pits, to whom he made known his object; and in 1840 he was in possession of twenty flints evidently shaped by men, which had been found in diluvial layers. He then gained some adherents to his views, but was still, by the majority of *savans*, believed to be a monomaniac.

Even so late as 1858 the French ridiculed his ideas. The learned societies refused to examine his propositions, and when he offered to make the government a present of his collection, this offer was not accepted. At last, by a happy accident, the Vice-President of the Geological Society of London, was induced to visit Abbeville. He inspected the cabinet of antiquities collected by M. Boucher, and gave a report on his return to England. From that time many English geologists traveled to Abbeville and to this city, and there appeared, one after the other, Messrs. Prestwich, Evans, Godwin Austen, Flower, Mylne, Sir Roderick Murchison, and at last the leading English geologist, Sir Charles Lyell. After having carefully examined the drift, they all agreed with M. Boucher, and came to the conclusion that these flint implements were shaped by men, that they were found in virgin soil, that they were connected with the remains of an extinguished species, and that the period of them was anterior to the time when the surface of the earth had received its present configuration. Thus M. Boucher had, as he expressed himself, gained his action in England.

In the neighborhood of Abbeville, in the valley of the Somme, immense diluvial layers exist, which rise to more than ninety feet above the level of the river. As they are cut through by the fortifications of Abbeville, by canals and by railroads, it is not difficult to examine them. The most important point is near Menchecourt. In some of these layers millions of large flints are met with, among which are some evidently shaped by the human hand. These are found from fifteen to thirty-six feet below the surface. The larger of them have probably served for hewing, and M. Boucher calls them hatchets. Close to these implements river and sea shells were found, such as now only exist in the Nile and other rivers and lakes of the torrid zone; for instance, *cyrene fluminalis* and others. Fossil bones of rhinoceros, mammooths, hippopotami, and an extinct species of oxen, which have been much larger than those of our time, have also been met with there. Near this city, where the geological formation is nearly the same as in Abbeville, the diggings have had the same result. M. Albert Gaudry, who has charged by the Parisian Academy of Sciences to search for such implements, found in a few days nine flints shaped by man, together with shells, fossil bones of large oxen, of a horse and other animals. These hatchets do not at all resemble the cuneiform hatchets which have been found in ancient tombs. They are exclusively made of flint, are of very rude workmanship, and either longitudinal and acute, or oval. M. Boucher believes that they were made by knocking off small pieces by means of hard stones, just as the primitive knives, lances and arrows of the Germans. No polishing or grinding was attempted; the hatchets were either used with the hand as they were, or they were fixed in sticks or clubs. The wood has of course not been preserved, but on the larger specimens there are pegs, to the upper extremity of which the wood was evidently fixed. Narrow blades of stone were also found, which were probably used as knives, and stones with indentations which could be employed as saws.

It was at first objected to M. Boucher, that the flint implements just described were only found at Abbeville and Amiens, but not in other places M. Boucher replied to this, that it was not his fault, as indeed all his endeavors to excite colleagues of his to similar researches failed, until one of your countrymen who visited Abbeville, Mr. Prestwich, recollected that at the end of the last century shaped flints had been found close to fossil remains of animals in the village of Hoxne, in Suffolk. He, therefore, immediately on his return to England, proceeded to Hoxne, where he examined the diluvium, and was informed by the working men that quite recently some flints had again been found there. He then commenced digging himself and found, about nine feet below the surface, not only bones of mammooths and oxen, but also flint hatchets which quite resembled those discovered by M. Boucher. Some months afterwards M. Goose, of Geneva, dug in the stone-pits of Grenelle, near Paris, which are quite similar to those of Abbeville, and found, at twelve to fifteen feet below the surface, two round hatchets, fifty knives and a few other pieces which had probably served as tops of lances and arrows.

It is, therefore, now impossible to doubt, that man was already in existence when the colossal mammooth, the hyena, the tiger and the gigantic deer lived in our latitudes. That the instruments then made by men are of very rude workmanship is no matter of surprise, as even in later periods hatchets were made which are only different from those mentioned above by being ground on whet-stones: besides, we must recollect, that in the torrid zone far less finished instruments are sufficient for man than in the moderate and cold climates. It is true that fossil bones of man have not yet been found; but that we may not despair of discovering such, is shown by the interesting circumstance, that quite recently a human skull was found in a limestone cave in the Neanderthal of Rhenish Prussia, which was totally unlike any other human skull ever found before. This skull has been described in Muller's *Archiv*, by Professor Schaaffhausen, of Bonn, who found it to be similar to that of the chimpanzee and gorilla; he ascertained that it belonged to the period at which the animals of the Deluge still existed, and that it was not a pathological malformation, but of a typical race character. Those of your readers who wish for some more information on M. Boucher's discoveries, will find it in his "Antiquités Celtiques et Antédiluviennes" (with eighty plates); "Essais Philosophiques sur la Création;" and especially in the *brochure*, "De l'Homme Antédiluvien et de ses Œuvres." Paris: 1860.—*Medical Times and Gazette*. Sept 7, 1861.

The Alcohol Question.

BY DR. HOOPER.

AFTER alluding to the physiological action of Alcohol, the author observes:

"All writers agree with Moleschoot, that 'wine saves the tissues from being burnt, by offering itself as a fuel;' and the most recent experiments of the eminent physiological chemists of Germany have completely established this truth: that alcohol, (in common with tea and some other agents,) by preventing the waste of the tissues is, if not a real and material pabulum, at least an equivalent to it, a diminution of expenditure being, of course, tantamount to an increase of income. It is objected, that alcohol is only a temporary stimulus; that the force generated by it is only temporary. But this is not a valid objection, since all stimulus, all force, is temporary; food, fresh air, exercise, are all stimuli, or generators of force, but all temporary in their action. Life is only possible under incessant stimulus. Tea and coffee are called 'agreeable and refreshing' stimuli; why should the stimulus of alcohol be called noxious? What is there peculiar in the alcoholic stimulus that demarcates it from all others? If a moderate quantity of tea be taken the effect is agreeable and refreshing; but if taken in excess, the effect is disagreeable and enervating. We may say the same precisely of a mountain walk; neither of these stimuli leaves the body in a worse condition (but, on the contrary, a better) at the expiration of five or six hours, than it would have been without it. Dr. Chambers applied this test (which seems to be a very fair one) to alcohol, and contends that if an individual finds himself better able to perform all the duties of life during five or six hours' interval of his meals, with and without alcoholic stimulants, then they are good for him; at the end of this interval, if alcoholic liquors agree with him, he will feel more cheerful and vigorous than he would have felt if he had not taken them.

In the case of poisons, or alcoholic excesses, this average interval of five or six hours would be one of misery, and before its expiration the poison or the stimulus would demand imperatively either a remedy or a repetition.

All physiologists agree, that every mental effort wears away a portion of nervous matter, just as every muscular effort destroys and removes the muscular fibre. This being so, the lost matter must, in both cases, be restored by the blood, unless a totally different law obtains in the two structures, which is improbable. Now, we know that the muscular tissue is repaired by the albuminous matter of the food existing in the blood. What part of the food, then, is it which, entering the blood, repairs, restores, or builds up the effete nervous matter? Phosphorous, oils and fat constitute a large portion of the nervous structures; and alcohol, being a hydro-carbon, is chemically allied to these components of nervecoll and fibre. But what is its precise action upon them? Is it a real pabulum? Does it nourish them, directly and materially, and build them up, in the same sense as pabulum does the muscular tissue? Or does it merely affect them after the manner of study, or cheerful amusement, without imparting anything to them of a real and substantial character? Or, lastly, does it simply quicken the circulation, and so send a larger amount of blood to the brain and nerves in a given time? These and similar questions have yet to be answered before the subject of alcohol can well be understood.

My own observation and reflection may lead to believe that alcohol drinks are highly useful, if not necessary, articles of regular, daily consumption, for vast numbers of persons; but that their kind and amount must be determined by age, sex, constitution, mode of life, and other circumstances. I believe they are more necessary for those whose avocations involve head-work, anxiety, and wear and tear of the brain, than for such as lead a comparatively animal life, or one of mere bodily labor. And I think it will be found that the degree of refinement of alcoholic liquor required, is in tolerable exact ratio to the expenditure of brain-power. The agricultural laborer, for example, is satisfied with ginger-beer, or very poor home-made beer; clerks and shopkeepers with bitter ale; and barristers, judges, and members of Parliament with wine. In fact, we find a gradation of brain-work corresponding pretty exactly to that of the refinement and alcoholic powder of the liquor habitually and instinctively made use of. On the continent, also, we see illustration of the same fact—the strength and refinement of the wines consumed, gradually rising with the exaltation of the brain-work of the consumers. Nor is it owing, as might be supposed, entirely to difference of rank or pecuniary resources; for every man finds the same fact illustrated and corroborated in his own experience. We all find, when on our tours in Switzerland or the Highlands, where we enjoy pure air, good food, and rest and recreation of brain; when, in short, we are living an animal rather than an intellectual life, we care nothing for, and do not require any sort of, alcoholic liquor; whereas, when engaged in our business or profession in London, in the midst of bad air, noise, hurry, bustle, competition, and excitement, we are conscious of an unmistakable craving for a certain amount of alcohol with our daily food; the reason being that, in the one case, we are doing everything to refresh and fortify, and in the other to exhaust and wear out the nervous system. This fact goes far to prove that alcohol, in some peculiar but as yet unexplained reason, *does* repair nervous tissues.

In estimating the value of alcohol, the experience and testimony of healthy persons who use it habitually, and in moderation, ought to be taken into account; also the fact that in all ages, and in every corner of the globe, man has discovered a method of preparing it. There are persons who do very well without alcohol; but this is no proof that it is useless to others. There are country districts where the laborers are healthy and strong without meat, and with beer almost as weak as water; but does it follow that the same fare would suit the London lawyer, barrister, judge, or member of Parliament? No, the two cases are totally different. Men whose labor resembles horses may do and live like horses, upon corn and water; but those who are calculating, thinking, and reasoning, twelve hours out of the twenty-four, require a more refined sort of food and drink. A ploughboy will look fat and rosy upon his bread and cabbage and hard pudding and water; whilst a Gladstone will require, besides these, good animal food, tea, coffee, and an alcoholic liquor of great purity and refinement. If the brain-work of the London clerk demands a supply of Bass' ale, that of the working statesman will require something approaching œnanthic æther!

Two arguments used by total abstainers require a short notice. They maintain that alcoholic liquors cannot afford any real and permanent benefit, because they contain little or nothing of a solid nature (as proved by evaporation to dryness). But if this proves the worthlessness of wine, so does it of tea and coffee. The fact is, experience has proved that all these agents, in spite of their unsubstantial nature, do refresh the wearied brain and nerves, and impart new life and health and spirits. Exercise, fresh air, study, tea, coffee, and segar smoke, are all devoid of solidity; but the argument that they are therefore incapable of imparting anything to the human body is still more so. On the contrary, we know that exercise does add bulk and weight and substance to the muscles, that fresh air does redden and enrich the blood; that recreation and study do nourish the brain and nerves; that tea, coffee, and alcohol do, at any rate, prevent waste of the tissues (and probably also directly nourish the nervous system), and that moderate smoking, by soothing and calming the over-busy and excited brain, prevents its exhaustion and waste; in short, some of the least material agents have the most real, powerful and beneficial influence upon the human body. Again, teetotalers contend that, in the case of alcohol, it is impossible to define moderation and excess, since what is moderation to one man is excess to another, and *vice versa;* but this is equally true of salt, tea, sugar, coffee, and many other things, moderation and excess in which they regard as tolerably well defined by common consent. The truth is, there is a certain recognized standard quantity of alcohol, salt, tea, sugar, coffee, etc., which all men agree to call moderate, and the difficulty is not greater in the case of alcohol than any other article of daily consumption. The man who eats a leg of mutton at a meal, or consumes a pound of salt, or drinks a gallon of beer per diem is looked upon by the public as a monstrosity, an exception, a wonder, whilst he whose daily consumption is one sixteenth of these several articles, is regarded as an ordinary individual—a type of the masses; in short, the excessive and the moderate man are as well known and as easily recognized as are any of the types and their deviations in the animal and vegetable world. It is idle and absurd to pretend that the boundary line between moderation and excess is definable. I believe every man knows where it is, and when he has overstepped it, even although, from long habit and sensibility, the transgression may have little effect upon him. The soldier's rations, the diet-lists of great hospitals, are so many proofs that there is a standard in these matters, well understood, and that public institutions, in their dietetical arrangements, do not contemplate or provide for monsters, who eat a leg of mutton or drink three gallons of beer per diem.—*London Lancet.*

On Climate and Disease in Japan.

Dr. Albrecht, attached to the Russian Mission in Hakodada in Japan gives the following account of his observations respecting the weather and diseases of Japan during November, 1859, and eight following months. From the month of May rain and fog prevail, brought by the east wind from the Pacific Ocean. In June, there were fifteen rainy days. During the winter, snow fell abundantly in Hakodada, a great deal of which was blown off by the wind, so that a bad sledge-road existed, scarcely used by the Japanese.

Hakodada, situated on the declivity of a mountain, is sheltered on the north and south by a chain of high hills, consequently there are but two prevailing winds; in the autumn, winter, and spring they are from the west, north-west, and south-west, but with no fog; from May, only east winds are felt.

The country around Hakodada is not particularly beautiful; everywhere there are high hills sloping towards the sea, but only for a few versts, and but here and there accessible from the sea. There is little shelter in summer; the flora everywhere is scarce; no beautiful meadow-land, as in our country. Husbandry is very little attended to upon the island, but in one village twenty-five versts from Hakodada there is a small rice plantation. The radish is more in use than with the Russians. The Japanese eat all maritime produce, with the exception of the poisonous kinds, all shell-fish, and innumerable roots and herbs; sea-weed is dried and cooked in soups.

The diseases most commonly occurring are ophthalmic and syphilitic diseases, both much spread, from the immense extension of prostitution, not spoken of by the medical police. If a Japanese has a disease in his eyes, and the gods do not aid him, he assuredly loses an eye, if not both. Their manner of living causes the inflammatory diseases of the eyes which are of such constant occurrence. When at home, a Japanese sits constantly before a fire-pan; he knows nothing of stoves, although the cold is very sensibly felt during winter, on account of the sharp west and north-west winds. Warmed by the fire, he goes into the open air, exposing himself to every temperature with uncovered head, the half of which is shaven. Congestion and inflammation are the results. The women shave even their eyebrows.

One domestic disease is the itch. This is met with even among the better classes. Few epidemics occur. Hakodada seems by its position to be protected from all stagnation of the air. Intermitting fevers are rarely known.

In Jeddo there is a medical school, which was established by the Dutch. The younger pupils in this establishment obtain their information by acting as assistants to those who are more advanced. Anatomy is said to be taught from the dissections of the bodies of dogs. All surgical manipulations in cases of midwifery are disallowed.—Dr. Franz Seitz. *Canstatt's Jaresbericht. Im Jahre* 1860, Band ii.

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Re-organization of the Medical Department of the United States Army.—A bill has been introduced by Senator Wilson for the entire reorganization of the Medical Department of the United States Army. This bill, with slight modifications, will, should it become a law, elevate the military rank of the higher Military officers, secure to the service a hospital and sanitary administration, which is now greatly needed, add much to the efficacy of the medical corps, tend to protect the health of officers and soldiers, and to secure to them, when sick or wounded, better attention and greater comforts.

EFFECT UPON CONSUMPTIVES OF SEA VOYAGES AND WARM LATITUDES.—The Parisian correspondent of the Boston *Gazette*, in a recent letter to that paper, says that the French Academy of Medicine has recently renewed the consideration of the subject of the influence of sea air and warm climates on the health of consumptives. In 1855, an essay on this subject by M. Jules Rochard obtained the prize which had been offered by the Academy. In that essay, the writer totally denies the favorable influence which had been thought to be exerted on patients affected with pulmonary phthisis, by sea voyages or a residence in warm climates. On the contrary, he maintains that phthisis is much more rapid in its progress aboard ships than on land—that it is more common among sailors than among soldiers on shore—that none but stout lungs can breathe an atmosphere saturated with humidity and irritating saline vapors from the sea—and that warm climates situated near the tropical regions exert an unfavorable influence on pulmonary tuberculization. Phthisis, he says, has its victims in every latitude. Statistical tables support his views. Soon after, M. P. Garnier read a memoir to the Academy for the purpose of controverting the bold assertions of M. Rochard. The proofs in support of his own side of the question were mostly drawn from the statistics of deaths in the large naval hospitals of France—at Toulon, l'Orient, Rochefort, Brest and Cherbourg; in which he finds that out of 8,997 deaths which have taken place, only 837 were caused by phthisis. This is less than one tenth, whereas one-fifth is the average annual mortality from the disease throughout France. In examining the subject anew, M. Blache read the report, which is considered a very able one. He carefully examines the two former memoirs, and decidedly gives the preference, for accurate investigation and reliability, to that of M. Rochard. The facts from the navy yards, upon which M. Garnier relies so much, are not thought by M. Blache to be strictly applicable, as so many of the individuals in such places are confined in houses and workshops on shore, where the land breezes periodically blow, and cannot therefore be said to breathe a sea air. The Academy adopted M. R's report, and therefore have now given new currency to the opinions of M. Rochard in 1855. The whole investigation and discussion upon the subject seem to warrant the belief that one's native air is best suited to the proper treatment of consumption.—*Boston Medical and Surgical Journal.*

This agrees with our experience as regards the effects of warm moist air on consumptives. When any benefit results from a sea voyage, it is owing more to exposure in the open air than to any other cause. As a sea-voyage is, however, often useful in dyspepsia, or where there is malassimilation of food, it must occasionally be useful in phthisis. In the next number of the JOURNAL, we shall lay before our readers some meteorological data relating to the climate of our coast-range, and plainly showing its great advantage as a resort for consumptive patients.—ED.

EIGHT CHILDREN AT A BIRTH.—The following wonderful story has been going the rounds of the daily papers:—"On the 2d of August, Mrs. Timothy Bradlee, of Trumbull County, Ohio, gave birth to eight children—three boys and five girls. They are all living, and are healthy, but quite small. Mr. Bradlee's family is increasing fast.—*Med. News and Library.*

ORIGINAL PAPERS.

Case of Extrauterine Pregnancy—Extraction of the Fœtus through the Vagina.

BY DR. BODINIER.

We translate the following interesting communication, that has been handed to us by Dr. Bodinier. The case is one which is rarely met with, and still more rarely recovered from:

The subject was a woman, age about 30. Had already had one child. She became pregnant again in April, 1861, and expected to be confined in January of this year. The signs of pregnancy were well marked: suppressed menstruation—milk in the breasts—the gradual development of the abdomen, which, however, had been more than usual,—movements of the fœtus, &c. On the 10th and 11th December, she had an attack of convulsions, and since that period the movements of the fœtus had not been felt. At the time when she expected her confinement to take place, she called her medical attendant, who attempted to bring on labor by the introduction of bougies into the womb, the administration of some powders (probably ergot) and other means, but the only result was to cause some pains, and a slight discharge of blood. She continued to suffer considerable pain in the abdomen, and in the middle of February a discharge of fluid (supposed to be the liquor amnii) took place by the rectum. Since this period she has had a discharge of fœtid pus by the rectum, five or six times a day; no discharge taking place from the vagina.

Having examined the patient for the first time on the 15th March, I found the uterus healthy and empty, but rather more forward than natural, it, as well as the bladder, being forced forward by a tumour situated in the recto-vaginal fossa. On examining the tumour by the vagina, I was enabled to detect certain bony protuberances, which I considered to be formed by the legs of a fœtus, the case being evidently one of extra-uterine pregnancy, the cyst having opened into the intestine. Since the discharge of the liquor amnii by the intestines, the abdomen had considerably diminished in volume, and a tumour was now found, situated in the right iliac fossa, and extending up about as high as the umbilicus. (Before the rupture of the cyst the umbilicus had been very much protruded.) The tumour was sonorous on percussion—the same as the rest of the abdomen; but on pressing on it through the abdominal wall, I perceived an increased resistance at one point, which, however, yielded to pressure with a peculiar noise, as if caused by a thin plate of bone, probably the fœtal skull.

The operation was performed on the 18th. I proposed to open the cyst, by introducing a needle, armed with a ligature, into it, through the posterior wall of the vagina, and to bring it out again into the vagina, so as to be able to draw after it, by means of the ligature, the chain of the ecraseur: by thus opening the walls of the cyst by the ecraseur, I hoped to diminish the chances of hemorrhage and of purulent absorption. I had succeeded in introducing and again bringing out into the vagina the point of the needle, when an accidental movement caused it to disappear, and as some bleeding took place from the wound made by the needle, I was forced to relinquish this part of the operation, which, theoretically, I regarded as the most original. I then proceeded to make an opening through the walls of the vagina with a large pair of scissors, and then worked through to the inside of the cyst, by means of my finger nail. The cyst once opened, I was enabled to draw it down by using my finger as a hook. I then introduced the two index fingers, and enlarged the opening by tearing the parts, so that I was enabled to reach a leg, and then the other—the arms and trunk were then drawn down, as also the head, after it had been broken up by the finger. The fœtus was in a state of putrefaction, but I succeeded in removing the skeleton entire, with the exception of some of the bones of the head, a parietal, which I extracted before bringing out the head, as I could not use much traction by the trunk. in extracting the head, for fear of breaking through the neck. Some of the bones of the head that remained were extracted by means of polypus forceps, and I then introduced my hand into the cyst to assure myself that it was quite empty. The walls were rough and semi-cartilaginous, and of sufficient thickness to retain the intestines in their place. I did not endeavor to discover the point of communication between the cyst and the intestine.

The patient, who had been very weak since I first saw her, supported the operation well, not more than an ounce of blood being lost. After well washing out the cyst she was put to bed, a bandage being applied round the abdomen. Four hours after the operation she was comfortable, but weak and perspiring slightly.

The next day she was better, and had less fever than she had before the operation was performed.

The fifth day she was able to get up to have her bed made, and to use the injections. There had been no fever since the operation.

March 25. The patient is going on well, without fever, and is regaining her strength. No fœcal matter passes by the vagina, but flatus occasionally escapes.

This operation has been performed by others, but I believe the idea of opening the cyst by means of the ecraseur is original, and also having replaced this proposed operation by making the opening by scissors, and then by tearing away the parts—a proceeding in this case most important on account of the extreme weakness of the patient, which would not have allowed of the loss of even a small quantity of blood without danger.

One of the peculiarities of the first three months of the patient's pregnancy was constant vomitings, or a desire to vomit, recurring every six or ten minutes. She also suffered considerably with pains in the hips, and towards the end of pregnancy, she had extreme thirst. The abdomen was much distended, and there was considerable œdema of the legs. The size of the fœtus would corroborate the opinion of the patient, that it died about the eighth month of gestation.

Pterygion—its Deviation.

BY DE COURCILLON, M. D.

AMONG the many diseases of the eye which the climate of California seems to breed, with a fatality somewhat Egyptian, Pterygion is one most frequently met with. Unfortunately, as in many other cases, its frequency seems not at all compensated by an easy cure.

Upon consulting my note-book, I find that within the last three years, thirty-two cases of Pterygion have called upon me for professional aid. Of those, nineteen only have been advised, and have followed treatment. In my opinion, the thirteen others were not, pathologically, of such a character, as to expect benefit from interference, either medical or surgical.

Of the cases which were treated, seven followed medical and twelve underwent surgical treatment.

As to the result it was not particularly brilliant. Among the cases only medically interfered with one is set down "cured," four "relieved," and two "not benefitted." Of the cases which were surgically attacked, the first was removed by excision, it having, as it often happens, started growing anew within a few days. I thought, then, of trying another method which Desmarres, who claims its first application, praises as almost of certain success. I mean "deviation," and indeed the result has more than responded to my anticipations. It gave not only satisfaction to myself, but also to the patients which last consideration is certainly not to be despised.

Here is how I practice "deviation," following as closely as possible the directions of the originator.

The lids are separated with common elevators. The pterygion is taken hold of with hooked forceps.

Then the surgeon with a fine bistouri or cataract knife, incises the mucous membrane above and under by the sides of the disease, from the cornea to the internal angle.

Then the head is dissected from the cornea, taking care that an aid keeps the parts free from blood, this can be done with Anel's or any other syringe.

The pterygion is thus loosened all round, except at the great angle, and thrown back upon the pedicle towards the nose.

Then an incision is made upon the inferior border of the wound made to the conjunctiva, following a parallel direction to the circumference o the cornea. This incision runs along the lower portion of the cornea, and ought to be large enough so that the extremity of the pterygion, which has become free by dissection can be introduced in it.

Things being so disposed, the flap formed by the pterygion is adapted in the incision of the conjunctiva, and fixed there with two or three stitches. The principal suture unites the head of the flap (that is, the part which reached upon the cornea) to the most angular part of the incision.

Cold water dressings constitute the whole after treatment. The sutures are removed from the third to the fifth day after the operation.

Desmarres writes—"The last five or six years I have operated on many patients by this proceeding—deviation—and I have only to congratulate myself upon the result obtained."

My own experience, in fewer cases, entirely confirms that of the distinguished Desmarres.

Diphtheria.

BY JAMES BLAKE, M. D.

I find through exchanges, that Diphtheria still continues the fashionable topic for discussion in the provincial Medical Societies in the East. It is to be hoped, however, the subject will soon be exhausted, either by the disappearance of the epidemic, or by the Profession agreeing as to the proper plan of treatment of the disease. The literature of Diphtheria that has appeared during the last four years would, of itself, suffice to fill a library. It is of all diseases, the one that offers the greatest field on which to expend the *cacoetes scribendi.* It is novel—it bears certain superficial resemblances to other diseases, which, however, it is not—it very slowly moves over a continent, appearing as a new disease consecutively in different localities, and generally remaining long enough in a place to afford time for its investigation—it is very insidious in its attacks, and presents phenomena calculated to excite the fears of the public, which at least renders it a popular subject. From these various causes, we believe that more writing has been expended on Diphtheria, than on any other medical subject that has been fashionable for many years; but although a great deal of trash has been written on it, and a large amount of paper spoiled, yet it is fortunate for the Profession and the public, that at last we are arriving at something like unanimity both as regards the nature and treatment of the disease.

During the last few months, Mr. Trousseau has been delivering a course of lectures on the subject, in which he admits the systemic nature of the disease, and advises a general tonic treatment, and we may now hope that when Trousseau, Barthez & Boucher, the chiefs of the local French School, have acknowledged their error in regarding Diphtheria as a local disease, and are agreed as regards its treatment, the smaller essayists of medical societies and provincial journals, will cease to advise either a purely local treatment, or calomel for the constitutional symptoms. When I first saw the disease in 1857, and before any observations had been published on the subject, I was at once struck with its systemic nature, and its analogy to other low forms of disease which we are accustomed to designate as typhoid, and pointed out the necessity of a tonic and stimulant treatment. Since that time the experience of the Profession all over the globe has afforded a satisfactory confirmation of the truth of the views I then published, and of the advantage of the treatment I advised, and the only change a much greater experience has led me to adopt in my views, as published in 1858, is to confirm me still more in the opinions I then expressed as to the systemic nature of the disease, and to lead me to a bolder use of stimulants and tonics in its treatment.

The following case which lately occurred in my practice, is interesting, as showing the great quantity of stimulants that can be borne, without apparently doing more than counteracting the lowering effects of the poison of the disease. I do not relate it as a model case, for there can be no doubt but that the affection of the throat was less than is generally met with, although I have seen cases in which, with as well marked general symptoms, there was still less throat affection:—

G. C., æt. 11.—Was called to see him January 15th, 3 p. m., and learned the following history: General health good; first taken unwell on the 13th, when he had not much appetite for his supper, and went to bed earlier than usual. The next morning, felt sick and kept his bed. Had a dose of citrate magnesia, which purged him three or four times; slept considerably during the day; appetite good; became feverish towards night. 15th, had another small dose of citrate of magnesia before I saw him. Saw him at 3 p. m. Looked pale and heavy; pulse 52, soft; skin cool; tongue greyish fur; complains of dull headache. On asking him if he had sore throat, stated that he had felt it hurt him a little on swallowing, just before I came. Found the left submaxillary gland swollen, and left tonsil enlarged, dusky red color and two or three small patches of diphtheric membrane on it. Applied liquor ferri perchlor to throat and ordered chlorate potass gr. x, and tinct. ferri gtt. xv, every three hours, an ounce of brandy with egg every two hours, and as much strong beef tea as he wanted.

8 p. m. False membrane extending; applied the caustic; pulse 50; soft, skin cool; expression of countenance anxious; bowels moved twice since 3 p. m. Add quinæ sulph. gr. ij to each dose of the mixture. Tinct. opii camph. drachm ss, and to be repeated after each evacuation. Continue treatment.

16th, 9 a. m. Slept pretty well. Is now agitated; cannot lie still; respiration sighing: pulse 48; skin cool; tongue not so much coated; membranes on tonsil extending slightly; expression distressed: applied caustic to tonsil; increase the tinct. ferri to gtt. xxv, every three hours, and continue the quinine and chlorate potass as before. Give an ounce of brandy with egg every two hours—beef tea.

3 p. m. Pulse better—68, weak, soft; face not so pale; tonsil less dusky; no extension of exudation; continue medicine, but diminish the quantity of brandy one-half.

9 p. m. Sleeping, but has been restless and agitated, since I saw him. Pulse 48, soft; skin moist; complains of great sensibility of the skin, over the larynx and on the side of the neck—even touching it lightly when he was asleep, made him start; submaxillary gland less swollen. Increase the brandy to oz. ij, every three hours. Increase the tinct. ferri to gtt. xxxiii· quinine gr. iij, potass chloratis gr. xv, every three hours. To be awakened in the night to give him his medicine and nourishment.

17th, 10 a. m. Better. Took plenty of nourishment during the night, and slept well. Throat feels better—no extension of false membrane; a partially detached portion hanging from edge of velum; tongue cleaner; skin moist; pulse 72, soft; better expression of countenance. Give the medicine every six hours—diminish the quantity of stimulants.

9 p. m. After sitting up in the bed for sometime, became tired and was restless and agitated all the afternoon—neither the medicine nor brandy has been given as regularly as ordered; skin cool; pulse 56; says he feels well; continue his medicine; brandy oz. j every two hours, with egg.

18th, 11 a. m. Better. Throat feels well, but still rather red; pulse 48; skin cool; has had two passages from the bowels, having taken some syrup rhei. Continue.

8 p. m. Improving. Pulse 72, and more tone. Has eaten chicken and eggs and brandy during the day. Diminish stimulants and medicine. From this time improvement went on uninterruptedly. He was up on the 20th although weak. The tonic in diminished doses was continued a few days longer, and the brandy was replaced by wine. It was a fortnight before he was able to go to school.

The above case is interesting as showing the quantity of stimulant that can be borne, in this disease, without producing anything like excitement. A child eleven years old—not previously exhausted by any lingering disease—was able to take more than a pint of strong brandy, in three days, and yet not the slightest excitement was produced, the effect of the stimulant being neutralized in counteracting the lowering tendency of the disease. In addition to the stimulant, large doses of quinine and tincture of iron were also taken. The only other affection in which such large quantities of stimulants can be taken without producing great excitement, is after the bites of some of the more poisonous snakes,—in fact, we know of no disease, in which the evidence of some septic poison having affected the system, is so evident as in Diphtheria; and yet, some four years since, I was accused of having committed an *extraordinary error* for having advanced such an opinion.

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AMERICAN PHARMACOPŒIA.—We understand that the revision of this work is in an advanced state of progress, and that the committee having it in charge are making every effort to have it ready for press at an early day.

REVIEWS.

SYSTEM OF SURGERY. By Samuel D. Gross, M. D. 2 vols. 2d edition. 1862. Philadelphia: Blanchard & Lea. For sale by Roman & Co., Montgomery street, San Francisco.

THE fact of this important work having, in the space of less than three years, reached a second edition, is a proof that it must have almost superseded, at least on the American continent, all other general treatises on the subject. That in so doing it is but justly appreciated, a mere glance over its contents, and at the style in which it is got up, has fully satisfied us—in fact, the System of Surgery of Prof. Gross may be said to be exhaustive, at least in so far as the term can be applied to a work on a science, which is so rapidly progressing. The work consists of two thick octavo volumes, each containing upwards of a thousand closely-printed pages, and profusely illustrated by more than twelve hundred engravings. The object of Prof. Gross has evidently been to place in the hands of the profession a treatise that shall be complete in itself, and that shall supersede the necessity of the general practitioner referring to any special works on the various departments of Surgery. So far as a superficial glance through the work can make us acquainted with its contents, the object certainly appears to have been realized. It contains a resumé of the recent advances made in pathology—in opthalmology and in military surgery; many of the engravings illustrate the microscopical appearances of morbid growths; others general pathology; whilst the larger number are devoted to the illustration of the more practical subject of operations. It is a work that should find a place in every medical man's library, however extensive, and one that cannot well be dispensed with, from the office shelves of the general practitioner.

In recently reviewing a work by Dr. Bumstead, on venereal diseases, we gave in our adhesion to the doctrine of the difference in their effect on the system, of the two varieties of chancre. Prof. Gross is evidently opposed to these new ideas, and as his experience must have been extensive, we think it right to lay what he writes on the subject before our readers, although we have treated, for the last two years, all cases of soft chancre without mercury, and have not yet met with a case followed by constitutional disease. Dr. Gross observes:

> "M. Ricord has recently published some very singular statements in regard to the peculiarities of these two varieties of chancre, which, if they shall be ultimately verified by the observation of others, would almost necessarily lead to the conclusion of the existence of two separate and distinct varieties of syphilitic poison. Thus, he positively affirms, on the strength of a large clinical experience, that the indurated ulcer alone is an infecting ulcer, that is, a chancre capable of furnishing a fluid which, if conveyed into the system, may contaminate the solids and fluids in such a manner, and to such an extent, as to give rise to secondary and tertiary accidents. The

non-indurated chancre, on the contrary, he regards as a purely local affection, often troublesome, it is true, but always free from the risk of invading the constitution in anywise whatever. My observations would lead me to infer that, while there really are two varieties of chancre, the indurated and the soft, as described by the French syphilographer, they do not by any means possess the properties which he ascribes to them. The hard chancre is unquestionably most frequently followed by constitutional symptoms, but to maintain that it is so exclusively is what, I am sure, no experienced practitioner will admit. So far from giving my adhesion to such a doctrine, I have had the most unequivocal evidence, in numerous instances, of the infecting properties of the soft chancre. Indeed, I am satisfied that some of the very worst cases of secondary and tertiary syphilis that I have ever been called upon to treat have been cases of this description; originating generally in very small sores upon the head of the penis and prepuce, perfectly soft in their consistence, very superficial, manifesting no disposition to spread, and soon completely disappearing. Such chancres not unfrequently exist without the knowledge of the patient, their discovery being, perhaps, purely accidental. It is doubtless this form of ulcer which has given rise to the absurd notion, not yet entirely exploded, of the possibility of the formation of bubo without the precedence or concomitance of chancre."

GUTHRIE'S COMMENTARIES ON THE SURGERY OF THE WAR. 6th edition: Lippencott & Co., Philadelphia. For sale by Messrs. Roman & Co., San Francisco.

THIS is another of the works which have been called for by the military operations, of which our country is now, unfortunately, the theatre. The reprint is from the sixth English edition, which was published at the end of the Crimean war. The foundation for the work, at its first appearance in 1820, was the extensive experience the author had gained during the campaigns in Spain, in 1808 and 1812, and at Waterloo, in 1815; and the fact of its having reached a sixth edition, the two last within three years, is a proof that the subsequent editions are not mere reprints of the old ones, but that they embody the latest advances that have been made on the subject.

BOOKS RECEIVED.

Longmore on Gunshot Wounds. Philadelphia: J. B. Lippencott & Co. Through Messrs. Roman & Co., San Francisco.

Border Lines, by Dr. W. Holmes, M. D. Boston: Tichnor & Fields.

O'Reilly on the Placenta and Nervous System. From the Author.

Amputation of the Cervis Uteri, by J. Marion Sims, M. D. From the Author.

Ninth Annual Report of the State Insane Asylum.

Explorations and Surveys for Pacific Railroad. Nine volumes. From the Hon. M. S. Latham.

PROFESSOR GROSS claims for Dr. Ephraim McDowell, of Danville, Kentucky, the merit of being the first to practise ovariotomy.

EDITOR'S TABLE.

Small Pox.

We believe the epidemic of Small Pox still continues unabated, although it has never existed to the extent that has been stated by some of the local papers. In the absence of all direct data on the subject, it is difficult to form an opinion as to the number of cases, but from all we can learn from our professional brethren, we are inclined to think that the cases in the city at one time, have never exceeded 150 or 200, and probably not so many, as this number would give one case to every 750 or 500 inhabitants, and had the disease existed to this extent, we think we should have heard more of it. We are only surprised that it has not spread more, as the result of our re-vaccinations shows that at least 60 per cent. of the population are in a condition to take the disease, as in this proportion have our cases of re-vaccination shown themselves susceptible to the vaccine virus. It is probable that, owing to the mild character of the disease, it is not so contagious as when it is more severe.

The epidemic will, most likely, soon die out for want of subjects, as attention is now being very generally given to re-vaccination. In regard to the protective influence of vaccination, statements have been published in the newspapers, which would tend to show that it does not extend beyond two or three years. This is certainly going from one extreme to the other. Although the continued immunity that was supposed to be afforded by a single vaccination from small pox, is an error, it is no less erroneous to assert, that the operation requires to be performed every second or third year. We consider that, as a general rule, revaccination at intervals of seven years, up to the age of thirty-five, will afford a fair average protection from small pox; or, should the protection not be absolute, the disease will be rendered so mild as to be almost harmless. The statistics afforded through a long series of years, at the London Small Pox Hospital, show that but few patients under ten years of age have been received with small pox after vaccination. After ten years the numbers increase considerably, the largest number of admissions being between the age of fifteen and twenty-five, and although progressively diminishing, they continue rather large up to thirty; from thirty to thirty-five they are nearly the same as from ten to fifteen. After thirty-five the cases go on diminishing, but the proportional mortality is much greater, the disease appearing in a worse form, the more the protective influence of infant vaccination has been exhausted by the lapse of time.

We are glad to hear that the city has enlarged the Small Pox Hospital, and have appointed a physician to attend on it. They were, however, preceded in this useful movement by that interesting portion of the community—the Chinese—who have not only established one, but three, and with their accustomed regard for barbarian prejudices, have located them in the most populous parts of the city, to serve as new centres of infection: to be sure they are merely surrounded by white people.

Board of Health.

We believe no other city of the size of San Francisco will be found on the civilized portion of the globe, in which the important questions that are constantly arising, involving the health of its inhabitants, are not placed under the supervision of those whose education and professional pursuits fit them more particularly for forming a correct judgment and offering judicious advice on this important subject. While thousands are spent every year to protect the lives and property of our citizens against the evil disposed members of the community—whilst large sums are lavished to diminish the risks of being burned up; whilst a few extra thousands can be readily raised, when a little legal advice is wanted, about the city's title to some acres of outside lands—yet, hardly a cent is expended to guard our citizens against a large class of diseases, whose ravages, if they cannot be entirely arrested, can certainly be much diminished, by the means suggested by sanitary science. There certainly is no other city in the old continent, or in the Eastern States, containing a hundred thousand inhabitants, in which there is not appointed some medical man, whose duty it is to act as health-officer, and to furnish to the authorities the best information that science is capable of affording, in relation to the causation and prevention of disease. From the topographical position, and the peculiar climate of our city, it ought to be one of the healthiest in the world; or, at least, the most exempt from a large and fatal class of diseases, which have their origin from bad drainage, imperfect supply of water, noxious effluvia, and decomposing animal and vegetable matter. In order, however, that these sources of disease should not be allowed to exist in our midst there should be some proper qualified person appointed, whose special duty it should be to point out, and see carried into effect, these hygienic measures by which the health of towns has been shown to be so much improved, and by which the spread of epidemic and endemic disease has been in so marked a manner, often arrested. True policy would suggest the appointment of such an officer, with the view of preventing the accumulation amongst us of sources of disease, which it will cost much more to remove by some spasmodic effort in the midst of an epidemic.

We thought, when we wrote the above, that San Francisco enjoyed the an nenviable notoriety of being the only large city without a sanitary officer

The following extract, however, would show that New York is in much the same position:

"New York presents to the world the singular spectacle of a great city, aspiring to supremacy in population, wealth, and intelligence, yet regarding with indifference those blighting influences which delay her progress, and tend powerfully to thwart her ambition. The annual devastation of her people by loathsome diseases which she can easily prevent, the disgust which her filthy streets create in every visitor, and her fearful system of packing the laboring classes in unventilated tenement houses, give her no alarm. Heedless of her own happiness, of the good opinion of men, and of the fearful evils which afflict her population, she rushes madly towards the goal which she is destined to win only at the hazard of every interest of justice and humanity.

"It seems incredible that an intelligent and Christian city could witness the annual decimation of its people by preventable diseases, without putting forth every honorable exertion to apply the remedy. Yet such, in its municipal capacity, is the conduct of New York. In 1860, by careful computation, this city lost 10,496 of its inhabitants by diseases that either do not exist in the most salubrious districts, or exist only in a modified and not fatal form. The hearts of the people are wrung with anguish when a score or two of lives are sacrificed on an ill-conceived battle-field; the commanding-officer is suspended from his command; a military commission inquires into the minute details of his plans, and if it proves him incompetent, he is dismissed the service. But New York, calmly indifferent, witnesses the annual slaughter of more of her citizens than occurs in a hundred destructive battles; no official is hurled with popular indignation from power; no searching inquiry is made for the causes of this costly sacrifice to official incompetency and neglect; but quietly the new year succeeds the old, and begins its chronicles of the same waste of human life.—*American Med. Times*, Jan. 11, 1862.

Patent Bread.

It seems that nothing is too sacred to escape the sacrilegious tendencies of modern reformers. It is but a few short months since the orthodoxy of the religious world was rudely shaken by the publication of a volume, entitled Essays and Reviews, and hardly has the polemical din excited by their appearance quieted down, before our domestic articles of faith are destined to receive as rude a shock by the announcement lately put forth by some fanatic free-thinkers, that the material staff of life which we are eating, is nothing but a mass in process of putrefaction, and totally unfitted to serve as food to animals at all elevated in the scale of creation. Had these domestic Tom Paines founded their infidelity on facts taken from the hot biscuits, muffins, and buckwheat cakes served up in our hotels, and unfortunately too, from many a domestic hearth, we should not have noticed their arguments, although we might have seen the fallacies on which they were founded, as we consider that any man deserves at least the silent acquiescence, if not the actual support of the profession, who endeavors to diffuse more widely the idea of the unwholesomeness of such compounds; but when they would include in the same category that highest product of domestic skill—the nice, white home-baked loaf, made with yeast or salt-rising, and so light as almost to be bursting with hidden goodness; why, then we feel called upon by the memories of many a supper and breakfast enjoyed in the happy farm-homes of our youth, and by the souls of many a generation of female ancestors, who lived in those happy days when wives were house wives as well as ladies, to do battle for the cause of common sense against science, and to boldly assert that we have still an unshaken faith in the wholesomeness, purity and virtue of our home-baked loaf, the opinions of the Patent Bread Company to the contrary notwithstanding.

A great deal of little science has been brought forward to show that this new sort of bread ought to be better than the old, but we can remember when somewhat analogous reasons were offered by science to prove that steamships could never cross the Atlantic. The fact is, science has been getting rather too rampant of late years. There can be no doubt but that she has much to be proud of—but because she has picked up a few valuable peebles on the shore, she has no right to jump at the conclusion that she can fathom the depths of knowledge. We are now but collecting the fibres, of which at some distant period a line may be woven, that shall enable future generations to arrive at some definite idea, perhaps, of the depths that still remain to be explored. With our present limited amount of science, by far the larger part of knowledge is the result of simple experience, and probably for ages to come it will continue to receive the assent of mankind, although based on no scientific grounds. In no department of knowledge has science thrown less light than on the properties of food, and we believe that the day is yet far off when any scientific data can be given which shall convince some stomachs that they ought to digest lobsters, and others that cheese is harmless. The fact is, the stomach is an empirical sort of an organ, and we naturally look with suspicion on all *a priori* reasoning as to what ought to be wholesome, and what ought to be deleterious. The proof after all must be left to experience and cannot in the least degree be influenced by the opinion of Dr. Alcott "that yeast and leaven are a filthy concern, and ought never to have been known."

If this new method of making bread is really an improvement, it will soon be adopted, and it will not require one-sided chemical arguments brought to bolster it up. We certainly have our doubts on the subject, for we know that exactly the same process was introduced in London some years since and proved a failure, or perhaps we should say was not appreciated. Now, notwithstanding all the ignorance and prejudices of our cis-Atlantic cousins, we believe they know good bread from bad, and would be likely to eat the best they could get. As for fermentation being a process of putrefaction, it is all humbug; or, if it is putrefaction, then putrefaction is that process by which heavy indigestible drinks, like apple and grape juice, are converted into cider and wine, light and wholesome articles of diet, and we strongly suspect that the fermentation that takes place in dough has an analogous effect, in rendering the bread *more digestible*.

Since writing the above, we have been enabled by the kindness of Mr. Winchester practically to test the unfermented bread, and we certainly consider it a decided improvement on the article generally supplied by the bakers, but at the same time we think it inferior to the finer sorts of French bread, both as regards its flavor and digestibility.

Medical Report of the Pacific Division of the Army.

THROUGH the kindness of Dr. Coolidge, Medical Director of the U. S. A. for this coast, we have been furnished with the sick returns of the troops for the quarter ending December 31. Our space not permitting us to give the report in full, we shall present a summary of the most striking facts it contains.

The mean strength of the army for the quarter was 139 officers and 3,405 men. Of these there came under medical treatment during—

	Ratio per thousand, mean strength.	
	Cases.	Deaths.
October	265	1·5
November	339	1·8
December	220	1·2
	824	4·5

The total number of cases treated during the quarter is 2960, of which 16 have terminated fatally. The causes of death have been—Delirium tremens, 1; concussion of brain, 1; chronic diarrhœa, 1; phthisis pulmonalis, 1; gangrene of lungs, 1; heart disease, 1; pericarditis, 1; variola, 1; typhoid fever, 8.

It will be seen that one half of the deaths have been due to typhoid fever, the great enemy of armies. Of these deaths, 6 took place at one camp, viz., Camp Alert, a short distance frum this city. The whole number of cases of typhoid fever reported is 45, which gives a mortality of 17·7 per cent. There are reported 277 cases of malarious fever, of which 2 were congestive, 149 quotidian, 90 tertain, 5 quartan, and 31 remittent—no death. Amongst 724 cases of disease of the digestive system, 243 were for simple constipation, and 283 for acute diarrhœa.

In 438 cases of disease of the respiratory system, 356 were cases of catarrh.

Amongst 621 cases of diseases of urinary organs, 249 were gonorrhœa 165 primary syphilis, and 59 secondary.

There were reported 145 cases of acute rheumatism, and 45 cases of chronic.

9 cases have been discharged—3 for chronic rheumatism, 2 for hernia, 2, for epilepsy, 1 for chronic bronchitis, and 1 for varix.

HEALTH OF SAN FRANCISCO FOR FEBRUARY.—During the last month, the number of interments in our city cemeteries amounted to 218, a considerable excess over the preceding month. From the imperfect character of the records, it is difficult to ascertain to what diseases this increased mortality is owing. It would seem to be confined more particularly to the adult portion of the population, as the number of deaths of children under three years of age, which in December formed more than a third of the total mortality, and in January rather less than a third, has been reduced this month to about a fourth. In 147 interments at Lone Mountain Cemetery, there were eleven that had died of small-pox, and four from erysipelas, a marked increase on the preceding month. Typhoid fever and diphtheria are rapidly declining, for whilst in December eighteen cases were recorded from these diseases, and in January eight, we have this month but four.

WE have received from Mr. Wakelee, corner Sutter and Montgomery streets, a complete catalogue of instruments manufactured by Charriere & Co., the celebrated surgical instrument-makers, in Paris, and for which house Mr. Wakelee is the sole agent for this State. These catalogues can be gratuitously obtained on application. We understand Mr. Wakelee will very shortly also issue a profusely illustrated catalogue of these instruments, which with the explanatory reading matter, will be of great service to the profession, by exhibiting at a glance the latest improvements that have been made.

* * *

NASAL HEMORRHAGE.—Dr. Hiard (de Mugroon) writes to the *Gazette des Hopitaux* that he never fails to stop even the most obstinate epitaxis, by a simple process of compression of the nostrils. Being subject in early life to frequent bleeding from the nose, he says he found that the hemorrhage came from a part of the septum within reach of the ends of the fingers. By compressing the alæ upon the septum, with a moderate pressure upwards as if to force them under the bones of the nose, the bleeding generally stopped within five minutes. The mouth should, of course, be held open during the process, and the breath should not be allowed at once to pass by the nostrils as soon as the blood ceases to flow. It is best to incline the head forward a little, as in the attitude of writing, resting upon the fingers which compress the nose. On removing the fingers, from six to ten drops of blood escape, which have accumulated before the flow is arrested. Should more escape, the process is to be repeated. For thirty years Dr. Hiard has used this simple method with uniform success. Even the hemorrhages of typhoid fever, or those occurring in cases of organic disease of the heart, have been uniformly checked without losing a teaspoonful of blood. In one instance, of an individual with hypertrophy of the heart, it was necessary to keep up the pressure for half an hour, as the blood was little else than serum.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late JOHN W. FRANCIS.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from emiinent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compilet of the Epitome of Braithwaite's Retrospect.

The first part of the SUMMARY OF MEDICAL SCIENCES will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "THE EPITOME" —and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. WELLS, M. D.—DEAR SIR: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage aud can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE

Pacific Medical and Surgical Journal.

SELECTIONS.

"The Liability to Small-Pox or to Vaccinia in any given Person are Equal," or, "What is a Man's Security against Small Pox."

BY DR. DRUITT.

THE following letter from Dr. Druitt appears in the *Medical Times and Gazette:*

SIR:—I will ask your readers assent to this proposition: Whoever can take the small-pox can also take the vaccine disease. Whoever can not take the one is also protected from the other. The greater susceptibility of any person to the one, the greater it is to the other also. There appear to be some persons so constituted, that they resist the vaccine disease. There are likewise some some so constituted that even unvaccinated they never take the small-pox. Conversely, they who are susceptible of small-pox are so to the vaccine influence. A man who has had the small-pox once is liable to it again, while some persons are liable to neither one nor the other. If this proposition, in its various forms be true, it suggests a caution.

The Statistical Report of the Army Medical Department for 1859, contains some tables which afford materials for the following calculations, which illustrate what I want to point out. It seems that 32,510 soldiers and recruits were vaccinated during fifteen months from October 1858, to December, 1859. They are divided into four classes: 1. Those who bore marks of previous small-pox amounted to 4124. Curious this, that an eighth of the flower of the adults of the working classes should still be marked with small-pox. 2. Those who bore good marks of previous vaccination, were 23,924, or about three-fourths, which is on the whole satisfactory, and tells a good tale for the vaccinators. 3. Those who bore doubtful marks of previous vaccination, were 1901; and lastly, those who bore no marks of previous vaccination nor small-pox, were 2561.

If we reduce these numbers to an uniform scale, we find that of the 32,510 soldiers vaccinated.

Those who had small-pox marks were - - - - - per 1000 125
" " marks of good vaccination - - - - - - 736
" " doubtful marks of vaccination - - - - - - 58
" " neither vaccine nor small-pox marks - - - - - 78

This gives a valuable, and on the whole, satisfactory account of the state of our laboring population, so far as regards vaccination. It may be presumed that in higher ranks there are none without vaccine marks.

Now, when we come to the results of the vaccination of these 32,510 persons, if we were to go by the common theory, we should expect that the persons who bore marks either of small-pox or of good vaccination would almost uniformly be insensible to the fresh infection, and that the persons with doubtful marks or none would uniformly take the vaccine well. How curiously we should be disappointed is evidenced from the following statement:

Out of the 4124 persons with marks of small-pox, the number who when vaccinated showed perfect vesticles was 1473, or per 1000 - 357
Modified vesicles were shown in 799, or per 1000 - - - - - 193
A failure in 1852, or per 1000 - - - - - - - - - - 440
Secondly. Out of the 23,924 persons with good existing vaccine marks, the number who when re-vaccinated exhibited perfect vesicles was 8976, or per 1000 - - - - - - - - - - - - 376
The number who gave modified vesicles was 5277, or per 1000 - - 220
A failure in 9671, or per 1000 - - - - - - - - - - 404
Thirdly. Out of the 1901 persons with doubtful marks of vaccination, the number who gave on re-vaccination good vesicles was 777, or 1000 - - - - - - - - - - - - - - 408
The number who gave modified vesicles was 505, or per 1000 - - 265
A failure in 610, or per 1000 - - - - - - - - - - 325
Fourthly. Out of the 2561 persons who had marks neither of small-pox nor of vaccination, and who (by the common theory) might be supposed quite unprotected, the number who gave perfect vesicles was 1362, or per 1000 - - - - - - - - - - 532
Those who gave modified vesicles were 484, or per 1000 - - - 169
A failure in 715, or per 1000 - - - - - - - - - - 225

These tables, compared with those of the results of re-vaccination in the Wurtemburg army, show us pretty exactly what is the amount of protection against small-pox actually existing in the case of the male population, assuming, as we are bound to do, that protection against small-pox and insusceptibility of vaccine disease are identical. Out of any number of men who have small-pox marks, the number protected is 44 per cent., while 56 per cent. are still liable to it in some form or other. The figures yielded by the Wurtemburg are identical—44 and 56—and, therefore, these proportions point to something like a law.

Out of any number who show good vaccine marks, the per centage absolutely protected is 40 or 41, whilst 59 are in some degree liable. Here, too, the figures of the Wurtemberg army are identical—40 and a fraction and 59 and a fraction; so that looks like a law.

Out of any number of men with imperfect or doubtful vaccine marks, the per-centage of protection is 33, whilst 66 are liable. (The Wumtemberg figures gives 46 as the number protected.)

Out of any number of unvaccinated men who have never had small-pox, only 23 per cent. are insusceptible, 77 are liable. Here, too, the Wumtemberg tables differ, giving 47 as the per-centage of protection.

In the foregoing observations it is assumed that vaccination has never been repeated.

From these data, and others before the Profession, we shall surely be justified if we drop a little from the unqualified tone in which it is customary to speak of vaccination, as if it were an absolute protection, and as if it ever could exterminate small-pox. And by being careful to define its true value, we should not run the risk, which we do now, of damaging vaccination, and producing reaction against it in the vulgar mind, because it does not affect all that we promise of it.

I repeatedly meet with such histories as these: A youth, aged 14, was taken ill with small-pox. After three weeks his three brothers sickened of it likewise. All had been *well* vaccinated, but the only one who had *severely* was one who had been vaccinated by a well-known public vaccinator in Marylebone, who pronounced the "arm" a remarkably fine one, and, in the excess of his zeal, said to the mother, "Well, Madam, if ever your child has small-pox after such an arm as that, I shall call vaccination a humbug." A conclusion which an uneducated person would be very liable to adopt.

Surely it would be better to state frankly that vaccination is proved to hinder small-pox from destroying life, good looks, and eyesight; but that if 1000 vaccinated boys grow to manhood, 600 of them will still be liable to a modified attack of small-pox, unless they are vaccinated again.

Then, if asked, as we often are. "Would it not be better to have the small-pox at once?" The reply will be, that small-pox gives but three per cent. more protection against a second attack than vaccination does. I find it recorded in one of the Reports on the Health of St. George's Hanover-square, that four children had small-pox. "They had all been vaccinated in early life, and their arms present perfect models of cicatrices; but it must be added that the only one of them who had the disease severely was Jane A., who had had it once already, after vaccination."

It must also be borne in mind, that some persons are so constituted that they take vaccine and small-pox readily, again and again. The figures at my command are too small to prove it, but I have no doubt that every case of death from small pox after vaccination, may be matched by one from secondary small-pox.

Others take them with the greatest difficulty. Hence some little prudence is requisite in speaking of "imperfect" vaccination and ill-developed cicatrices. These are due to the insusceptibility of the patient, rather than to the unskillfulness of the operator. If once good vaccine matter be inserted, the result, whether a good cicatrix or bad, is out of the operator's control.

The sum of what I desire to say is, that the susceptibility to small-pox and to vaccine being equal, and the protection afforded by either being incomplete, the public should be frankly enlightened on this latter point, and should be encouraged to repeat vaccination periodically. Systematic national *re*-vaccination is almost as much a necessity as the primary operation.

We should not have republished Dr. Druitt's letter on vaccination, had we not heard expressed in many quarters objections to the operation, which are fully met in his letter. We see, too, that some of the medical journals are publishing accounts of disease having been communicated by vaccination to a number of children in a small town in Italy. A commission of physicians appointed to investigate the facts came to the conclusion that the statements are not well founded. There have also occurred many cases in Sacramento, in which vaccination has been followed by sickness, and even in instances by death (five cases, we believe), but there can be no doubt but that this unfortunate result was owing to the operation having been performed with bad matter. That such was the case is rendered highly probable by all the fatal cases having occurred in the practice of on hysician.

Amongst upwards of eight hundred vaccinations that have been performed by myself and more immediate friends, I have heard but of one case in which the arm was more than usually sore, and in that, although the inflammation involved at one time the whole arm, the symptoms never presented anything alarming.—ED.

On the Action of Certain Substances upon Phthisis.

BY RICHARD PAYNE COTTON, M. D.

THE following observations upon the action of steel were made upon twenty-five in-patients of the Consumption Hospital. As in all my preceding experiments, I studiously avoided any selection of cases, and excluded only those in which the disease was obviously too far advanced to render any kind of treatment available, and those in which there existed some complication would tend to negative the result.

Of the twenty-five patients, ten were males and fifteen females. Six were in the first, six in the second, and thirteen in the third stage of the disease. Ten were under the age of 20, and the rest were between 20 and 40 years of age.

I selected the old *vinum ferri* as being the most simple of the many forms of iron, as well as the one seldom objected to, and is rarely found to disagree. At the commencement I prescribed two drachms twice a-day, each dose being gradually increased to half an ounce, and in some instances to an ounce. The treatment was continued for periods varying, according to the different cases, from four to thirteen weeks. In two or three of the female patients, the steel seemed to cause slight headache, which, however, generally disappeared when the dose was lessened or temporarily discontinued. During its use, the patients' appetites were usually very good, and there was not the slightest indication of increased liability either to hæmoptysis or any other active symptom of the disease.

Of the twenty-five patients, thirteen *greatly* improved; three *slightly* improved; and nine derived *no benefit*; of these, three died in the Hospital.

In thirteen of the cases cod liver oil was occasionally but not regularly taken in conjunction with the steel; but in the remainder no other medicine was administered, except simple linctus for the cough. Fourteen patients increased in weight—some of them very considerably; eight lost weight; and three remained unchanged in weight. Nine of the fourteen cases in which the weight increased were those who had taken cod-liver oil. One of these patients, in the second stage of the disease, illustrated the remarkable but not rare phenomenon, of increasing in weight, whilst both the local and many of the general symptoms of consumption were steadily advancing.

Of the thirteen patients *greatly* improved, several left the Hospital with their general health restored, and their active symptoms dissipated. Four were especially remarkable for the improvement they exhibited, being able, in spite of the unmistakeable existence of pulmonary cavities, to resume their several pursuits on leaving the Hospital.

Seven of the thirteen improved cases were under the age of twenty—a large proportion, if we consider the respective ages of the patients.

Perhaps I may here remark, although I had not hitherto tabulated the cases I have treated with steel wine, I have long been in the habit of prescribing this medicine, in conjunction with cod-liver oil, to phthisical and strumous patients, especially to children and young persons, and have always placed great faith in its efficacy. I have, indeed, always considered it amongst the most useful remedies in this class of diseases; and in this homage to the *vinum ferri* very many of my medical brethren will doubtless join. That this remedy fairly deserves to be thus estimated is, I think, sufficiently shown by the experiments I have detailed.

After I shall have recorded similar observations upon a few other substances which are now undergoing probation in my hospital wards, I hope to give a general summary of their comparative results. And, although I am quite willing to admit that any conclusion at which I may arrive in the course of these experiments must necessarily be imperfect, and at most but an approximation to truth—considering that, in order to teach actual truth, many insuperable difficulties present themselves, such as a want of uniformity in the cases, circumstances, and stages of the various patients, as well as in the season of the year, the diet, and a multitude of other circumstances—it will, I think, be nevertheless conceded, that the trial to which I have subjected the different remedies is not altogether unproductive, and that on the present occasion steel wine comes before us very favorably as a medical agent in the treatment of phthisis. In order, however, to assimilate this paper with those which have preceded it, I would record the following conclusions:—

1. Steel wine is a very useful auxiliary in the treatment of a considerable number of consumptive patients.
2. It seldom disagrees, but tends rather to increase the appetite, and improve digestion.
3. It is especially valuable in the cases of children and young persons.—*Medical Times and Gazette.*

On Acupuncture in the Treatment of Muscular Rheumatism, and on Galvanism in Rheumatic Paralysis.

BY ARTHUR LEARED, M. D., LONDON.

THE treatment of muscular rheumatism is sometimes so unsatisfactory as to exhaust the patience alike of the sufferer and of his Medical attendant. In the following remarks, I wish to show the efficacy of two powerful remedial agents, acupuncture and galvanism. The latter is at length beginning to claim the attention it deserves; but acupuncture, though employed by that observant and practical people, the Chinese, from time immemorial, yet has not been fairly tested in our modern practice. It is not my intention to offer any speculation on the *ratio medendi* of this curious mode of treatment, only remarking that it possibly depends on the production of galvanic currents.

Several years ago I was consulted by a lady for rheumatism, the principal seat of which appeared to be the right deltoid muscle. It was attended by considerable loss of power, and the severe and constant pain had seriously impaired the patient's health. Hearing that a number of approved remedies had been employed without effect, it occurred to me to give acupuncture a trial. Three or four needles were deeply inserted into the affected part, and allowed to remain about an hour. The result was complete cure of the pain, and the full use of the arm was soon recovered.

Many cases apparently of the same sort of rheumatism came under my treatment when I was Physician to the Civil Hospital at Smyrna during the late war. Acupuncture was tried in one case, in which pain was also referred to the deltoid muscle, but it seemed to be of no avail. But while I think it right to mention this, it is to be added that there was too often cause to suspect either that no pain really existed, or that its relief was tardily admitted. The harassing duties of the Crimean trenches, from which these patients had recently escaped, made them sometimes unscrupulous in devising means to delay their return to duty.

In the next instance, the details of which I give from my note-book, acupuncture was quite successful.

A gentleman, 50 years of age, and of strong constitution, consulted me January 20, 1860, for rheumatism, contracted, as he believed, from sleeping in a damp bed while travelling. He had for some time suffered severe pain in the right arm and shoulder, but not immediately in the shoulder-joint. It was evident that the deltoid muscle was the part chiefly affected, but pain also extended in the course of the trapezius muscle to the back of the head. Loss of power over the arm had gradually ensued, and was so complete when I first saw him, that with the scapula fixed he was incapable of raising it in the smallest degree. The temperature of the part seemed to be rather below that of the other arm, and sensation was slightly impaired.

I prescribed the iodide of potassium in full doses, and it was continued until its specific effects were experienced, but no benefit resulted. Colchicum was also fairly tried without any benefit. Tonics and sudorifics in succession shared the same fate. In short, with the exception of temporary relief obtained from opiates, rendered necessary by the suffering and loss of rest, no internal treatment appeared to benefit the patient. In the meantime, external applications were not neglected, stimulating and narcotic liniments, containing ammonia, turpentine, tinctures of opium and aconite, etc., were diligently rubbed in. Sulphur was applied to the arm by means of a flannel bandage. The effect of heat was tried by means of bags of salt as hot as could be borne, and finally, the firing iron of Dr. Corrigan was freely employed. But the benefit afforded by any of these measures was either so trifling or so transitory that I felt almost in despair about the case.

The signal success which attended the use of acupuncture in the case first mentioned, caused me, however, to suggest it to the patient, who consented to have it tried. I now cautiously introduced three stout needles into the deltoid muscle until they touched the humerus, at about equal distances from each other, and the needles were left inserted about an hour. Almost immediate and permanent relief was obtained. The patient scarcely complained from that time of any pain in the shoulder or arm, but the paralysis continued as at first. For this state of things, galvanism, of course, naturally suggested itself. I began with its milder effects, using the ordinary induction apparatus and the intermittent current, while the force of the shocks was gradually increased. The result was perfectly satisfactory; the patient was galvanised on alternate days for about a fortnight, and every application was attended by an improvement, rendered visible by the increased power of raising the arm. On February 29 (at the end of the time above named), he declared himself quite recovered, with the exception of an aching which occurred on the side of the neck when he suddenly moved it, but this comparatively trivial symptom did not leave him for a considerable time. I ascertained very lately that no relapse had taken place, and all unpleasant sensations had long disappeared.

The foregoing successful cases prove the great value of acupuncture, because in them many other remedies had been previously employed without avail, while its speedy action indicated its real efficacy.

The potency of galvanism was also shown in one of the cases, but there is sufficient evidence that it usually acts beneficially whenever, as in this instance, the paralysis is due to a peripheral affection of the motor nerves.—*Medical Times and Gazette.*

Hospital Notes.

DR. ANDREW CLARK reports in his notes of practice amongst the out-patients at the London Hospital:

SULPHURIC ACID MIXTURE IN DIARRHŒA.—There is at least one advantage in dealing with large numbers of out-patients at a public Hospital. You can classify cases of particular diseases into sets, study the comparative values of the different remedies, and acquire possession of broad therapeutic facts. It is objected that therapeutical experiments upon out-patients are worthless on account of the hygienic conditions under which they are placed. But this, it seems to me, is the very reason that they are eminently *worth-full*. When you experiment upon in-patients, it is often doubtful whether the cures you get are due to the improved hygienic conditions of the patients, to Nature, or to your particular remedy. But the cures you get among out-patients, in spite of unfavorable hygienic conditions, and in the very circumstances under which the diseases are contracted, may more justly be considered criteria of the values of your plans of treatment.

I have lately had the opportunity of renewing our therapeutical experiments upon diarrhœa; and with the same results as before. Sulphuric acid has been tried in contrast with chalk, opium, nitrate of silver, copper, bismuth, lead, pernitrate of iron, and others, singly and in combination; and it has come out of the trial demonstrably as a more rapidly efficient agent than any of them in the cure of diarrhœa; but it is much less effective alone than in combination. Given in the nanner prescribed below, it has succeeded in curing 74 per cent. of cases of diarrhœa within forty-eight hours.

When the stools are scanty and frequent, the administration of the acid is preceded by a dose of castor-oil. When they are abundant and watery the acid is begun at once: ℞ Acid sulph. aromat. ♏xx.; tinct. camph. comp., ʒj.; ætheris chlorici, ♏x; spirit. menthæ pip. ʒss.; syrupi rhœados, ʒj.; decoct. hæmatox. ad ℥j. or, if the mixture is to be kept, some aromatic water. To be given every four, five, or six hours, according to the urgency of the diarrhœa. The object of the aromatics in the formula is the correction of the fæcal fermentation which is one of the chief conditions in the production of diarrhœa. In some cases, the second or third dose succeeds in checking the disease, and then the patient is troubled for a day or two with pinching pains in various parts of the bowels. These are best relieved by a small dose of castor-oil with an aromatic. The acid is rarely successful in phthisical or dysenteric diarrhœa, but it is so in the early stages of these complaints.

PODOPHYLLIN AS A CHOLACOGUE.—Dr. Ramskill has also tried this remedy largely. He says that it is the most powerful chologogue known, and is infinitely superior to any in the Pharmacopœia, more active, and more certain. Granted there be any healthy liver-structure remaining, it is certain to produce copious excretion of bile. It is a cathartic as well as chologogue, but its latter effect frequently precedes the former, as proved by occasional regurgitation into the stomach and vomiting of bile before its cathartic action has commenced. First, as to its mode of administration, he has, he states, never given more than half-grain doses, and after numberless combinations, he finds the following most efficacious and kindliest in action. For quick and aperient action, half a grain of podophyllin combined with an equal quantity of extract of Indian hemp, repeated every six or eight hours. Occasionally this dose causes griping. A combination he more frequently uses consists of one quarter of a grain of each with two or three grains of dried carbonate of soda. The podophyllin saponifies with an alkali, and is rendered very much more mild in its action. To give illustrative cases—where the arrested secretion of bile, or congested or sluggish liver, is a drawback to the progress of cure. In chronic dysentery, phthisis, cardiac disease, as well as in liver diseases proper, its good effects are equally manifest. Given with sedatives in small doses, it acts not only on the liver, but on the salivary glands, producing, like mercury, a copious flow of saliva, though unattended with the characteristic mercurial affection of the gums.

IODIDE OF POTASSIUM.—Iodide of potassium is one of the remedies which has of late steadily increased in general favor. This may, perhaps, to some extent be explained by the fact to which we have frequently adverted, that recent researches have proved many hitherto obscure affections to be really due to syphilitic taint. Although very valuable in some forms of rheumatism, and in procuring the absorption of inflammatory products generally, yet it is against the tertiary forms of syphilis that this salt best shows its specific power. Of late years the customary dose has much increased, and eight to ten grains is now with many of our hospital surgeons an ordinary prescription. Considering the enormous quantities which are prescribed, both in hospital and private practice, and the rarity of any observable ill effects, it is quite clear that for the most part it exerts no evil influence. Wasting of the breasts and testes, the bugbears of former times, are now never heard of, and anything like iodism is certainly exceptional. The addition of ammonia to all mixtures containing the iodide of potassium is now a very common practice. We mentioned it some years ago as having been strongly recommended, amongst others, by Dr. Gull at Guy's and by Mr. Paget at St. Bartholomew's. Mr. Paget used to remark that he considered five grains of the iodide with half a drachm of sal volatile equal to ten grains of the iodide alone. With some surgeons, and especially in the treatment of syphilitic diseases ot the nerves or brain, the addition of tincture of nux vomica is frequently made.

ARSENIC IN CERTAIN FORMS OF OPHTHALMIA.—Mr. Critchett has of late often prescribed arsenic in certain chronic forms of ophthalmia occurring in young persons. He speaks very highly of its efficacy. It is chiefly in intractable cases of pustular ophthalmia which have lasted far beyond the usual period, and are attended by intolerance of light and a feeble and irritable state of the system generally, that this medicine seems useful. In the same class, quinine and iron are often very effectual, but the arsenic not unfrequently manifests peculiar and superior powers. If desired, it may be conveniently prescribed in combination with iron. For children, the common steel wine is a very suitable vehicle. For a child of five years old a minim of Fowler's solution in a teaspoonful of steel wine, given three times daily, is an appropriate prescription, and one under which many a case of severe pustular ophthalmia will recover with great rapidity.—*Medical Times and Gazette.*

DR. G. D. BEEBE, of Chicago, has received the appointment of Brigade Surgeon in the army of the United States.

The Use of Warm or Lukewarm Fomentations in Certain Ophthalmiæ.

ALTHOUGH at the first glance this remedy may be deemed but of slight importance and trivial value, capable of but little good, incapable of much evil, this is really not the case, for it may indeed form a most valuable or a most dangerous agent. For instance, in cases of conjunctival blenorrhœa, warm fomentations are often accompanied with the most disastrous results, whereas cold applications act most favorably, and in slighter cases often suffice for a cure.

Von Graefe has experimented much with warm fomentations, and has in some classes of cases found them quite indispensable.

They may, according to him, be employed with advantage,

1. For a peculiar and highly dangerous disease of the cornea, which he designates the "non-irritable purulent infiltration of the cornea." The symptoms of this important affection he describes as follows: "It generally attacks children under eight years of age, a small yellow spot is seen in the centre of the cornea, which rapidly increases in size (attaining often within two days a line in diameter). If we see the patients at this stage, we are at once struck with the general condition of the eye, the utter want of the symptoms of injection and irritation, &c., which are premonitory of the circumscribed inflammatory infiltration of the cornea. There is but slight lacrymation, the eye is opened freely, even in a strong light, the subconjunctival injection is very slight indeed, the conjunctiva perfectly free. With regard to the infiltration, one thing is particularly characteristic, viz., that the purulently yellow portion, extending deeply into the cornea, and more or less ulcerating, passes at once into a normally transparent portion; whereas in the inflammatory infiltration, it passes over into a gray nimbus, whose extent indicates the low changes in the parenchyma which have not yet led to the formation of pus. If the disease be left to itself, it may pass over under certain changes of appearance into a cure. In the severer cases, however, the yellow purulently infiltrated portion of cornea increases more and more in extent, betraying, except in the later stages, but little disposition to perforate. The formation of pus, as has been before mentioned, extends from the very commencement deep into the cornea, the epithelial layer of the membrane of Descemet even becoming soon involved, so that the aqueous humor assumes a diffusely yellowish tint, without, however, depositing an hypopyon. The iris becomes swollen and peculiarly yellow, or reddish yellow, without, however, showing any of the symptoms of an acute iritis, such as posterior synechia, &c. But whether this yellow discoloration of the iris, in the formation of which (as is shown by oblique illumination) hyperæmia of the larger vessels takes an active part, is dependent upon a real formation of pus in it, or upon some other changes in the parenchyma, I do not know, not at present possessing any decisive anatomical preparations. If the process passes over into a cure, be it spontaneous, or through the assistance of art, this is brought about invariably, through the partial appearance of those symptoms of irritation which have hitherto been wanting, and the formation of a grey slightly swollen nimbus around the purulently infiltrated portion, (as in common inflammatory corneal infiltration) to which it now assumes a greater and greater resemblance. This affection has, in contradistinction to the common inflammatory infiltration of the cornea, a decidedly malignant tendency. Whilst the latter leads to purulent destruction only, through an excess of the inflammatory irritation, showing however, in

the main an inclination to limit itself to certain sections of the cornea, and even in case of a loss of substance, extending rather in depth than in circumference, we find that just the reverse obtains in the affection of which we are treating. The whole assumes from the commencement a suppurative, ulcerative character, and tendency to spread circumferentially."

Von Graefe chanced, three years ago, to have so great a number of children afflicted with this affection under his care, that he could not but look upon it as epidemic. Whilst the milder cases got well by merely guarding them against noxious influences, together with closure of the lids, instillation of atropine and local depletions, the more severe (in which the purulent infiltration was more extensive) set all these remedies at defiance. Whilst cold compresses exercised a most deleterious influence, warm fomentations were found to act favorably. Von Graefe, therefore, gradually raised the temperature of the warm chamomile fomentations to 25—32° of Reaumur (98° to 105° Fah.) The less the irritation, the higher should the temperature be. The fomentations should be changed every five minutes, and desisted from a quarter of an hour at the expiration of every hour. As soon as the greyish nimbus of demarcation is formed, and the purulently destroyed portions of the cornea commence to be thrown off, the warmth of the fomentations and the duration of their application should be diminished. For if this is not done, the inflammatory reaction will be excessive. In fact, it may even be necessary to have recourse to the opposite plan of treatment (cold applications, leeches, &c.), when the affection has been led over into the second (inflammatory demarcation) stage, and the symptoms of irritation exceed a certain *juste milieu*.

He has also found warm fomentations most efficient in those cases in which, together with a neglected traumatic loss of substance, as we often see in country people, a purulent infiltration in the cornea shows itself without any particular symptoms of irritation; the tendency to spread circumferentially, becoming more and more prominent, the aqueous humor of the iris assuming a yellow hue, &c.

But here, of course, when the pus in the anterior chamber has exceeded a certain amount, paracentesis or iredectomy will be found indispensable.

To sum up. "The methodical application of warm fomentations assist materially in bringing about the desired demarcation in all the non-irritative purulent infiltrations of the cornea, which shows a tendency to spread circumferentially."

2. Warm fomentations are most serviceable in those cases in which, after an accident or an operation a circumscribed corneal infiltration shows itself, where very violent pain does not yield to one or two applications of leeches, where the customary cold applications either do not alleviate at all or only temporarily, and where finally a circumscribed portion in the infiltration becomes yellowishly discolored. After the fomentations have been applied for 12—24 hours there will generally be a diminution in the irritation, and the process on the cornea begins to be circumscribed; when the desired effect has been attained, we must cease their application.

3. In those cases of malignant ulcers of the cornea in which there is but little tendency to the formation of pus, but a tendency to progressive destruction of the cornea, not only in depth but in circumference.

4. In the diffuse suppurations of the cornea which sometimes unfortunately threaten or occur after extraction. Von Graefe has found them here of great advantage, patricularly in old decrepid people, in whom, after passing 18—24 hours without the slightest pain, we notice much swelling of the upper lid and a too great conjunctival secretion. If these symptoms are not due to an inaccurate adaptation of the corneal flap (for which compresses are the best remedy), he applies warm fomentations periodically, and paints tincture of iodine on the lids.

But although we cannot expect much good even from this application, when there is a plentiful thin secretion from the conjunctiva, serous chemosis, yellow hue of the whole of the cornea, and a more or less circumscribed abscess, we yet find that they will limit these processes to the anterior portion of the eye-ball, and thus spare the patient the frightful sufferings of panophthalmitis.

5. They are also useful in any obstinate cases of granulations with or without pannus, for it is a well-known fact that, under these circumstances, a certain amount of conjunctival swelling is very propitious. Von Graefe thinks that the spontaneous curability of acute granulations (which often require but little, if any, therapeutic aid) depends on this. Whereas, on the other hand, we find that the less conjunctival hyperœmia there is, particularly during the stage of development, the more do the granulations develope themselves and attain the type of the so-called trachom granules. It has been lately shown, particularly in Belgium, that the development of a diffuse hyperœmia of the conjunctiva brought about by inoculation not only exerts a most beneficial influence upon secondary pannus, but also upon the acute granulations. The curative effect of the periodical application of sulphate of copper is similar in nature. And the same is the case with warm fomentations, which remedy links itself on to the treatment by inoculation, and although it cannot supplant this remedy in all cases, it has yet the great advantage of being free from danger. This is of the more importance in Berlin, where, owing most likely to the climate, diphtheritic inflammation often intervenes on the inoculation of blenorrhœa.

Finally, having observed that patients suffering from the very obstinate diffuse non-vascular form of keratitis, have been surprisingly quickly cured if they perchance have been infected with conjunctivitis, Von Graefe has tried the warm fomentations in some of the cases with good effect. At present, however, his observations have been too few to warrant any very decisive opinion on their efficacy.—*Ophthalmic Hospital Reports.*

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CASE OF POISONING BY OPIUM TREATED BY BELLADONNA.—A man who had drank about an ounce and a half of laudanum came under Dr. Motherwell's treatment at the Melbourne Hospital, deeply comatose, and with the pupils contracted to pin's head size. Doubting the propriety of treating this description of case by keeping the patient in constant motion, and the employment of galvanism, and desirous of testing the reputed antagonistic action of belladonna in overdosing from opium, Dr. Motherwell prescribed the tincture in such quantities that the patient had taken eleven drachms and a half in less than three hours. Effectual dilatation of the pupil did not take place until then, the patient rapidly recovering from the effects of both poison and remedy. This case being a solitary one, and the laudanum having been taken fourteen hours before the belladonna was begun, nothing very conclusive can be drawn from it; but Dr. Motherwell, in another case of opium poisoning, would not hesitate to prescribe still larger doses of digitalis, rousing the patient considerably, or applying the cold douche for a minute or two when the coma was profound.—*Australian Medical Journal*, October.

A monument to the memory of Sir Humphrey Davy is about to be erected at Penzance, Cornwall.

Exfoliation of Mucous Membranes from the Womb and Vagina during Menstrual Periods.

PREPARED BY E. H. JANES, M. D.

Dr. E. J. Tilt reports cases of this description in the last number of the *Archives of Medicine*, with some remarks respecting the conditions in which these products originate, and our limited means of modifying these conditions. He is convinced that such cases are more frequent than is supposed, which may often explain the almost indefinite prolongation of disease. A lady aged 25, healthy before marriage, which was at 23, consulted Dr. Tilt in September, 1860. Since her marriage, menstruation became painful, and almost always accompanied by the passage of some flesh-like substance from the vagina. She was also annoyed by the frequent discharge of a gluey matter, which did not yield to tonics and vaginal injections. The neck of the womb was found congested and painful, both lips of the os deeply excoriated and red. It was considered an instance of uterine inflammation produced by marriage; and improved under the influence of an occasional application of the nitrate of silver. The menstrual flow being limited to the discharge of a small quantity of red mucus, she was ordered to bathe her feet in warm water, to inject warm water into the vagina, and apply hot poultices to the abdomen, which not only increased the flow, but there was discharged with severe pain, an unbroken sac containing liquid blood. The abraded surface was afterwards coated with solid nitrate of silver, and alum and zinc injections ordered, with external use of mercurial ointment, and ext. belladonnæ and the iodide of potassium, to be taken in a compound infusion of gentian. The uterine cast, after three days maceration in spirit, was in two fragments, and described as follows:—"When adjusted, they remind one pretty well of the cavity of the womb regularly distended. Each fragment is about two inches and a half in length, an inch and a half wide, and about a line in thickness. One side of these membranes has the rough and flocular appearance of the decidual membrane as it is detached from the womb, and the other side is soft, smooth and punctuated like the inner surface of the same membrane by the openings of the uterine glands." He regards this case as an instance of sexual influence operating on the womb, either directly or mediately, by the ovaria, causing the periodical exfoliation of the uterine mucous membrane, independent of inflammatory action; the inflammation of the neck being a secondary element of the case, and caused by its forcible distension necessary for the passage of so large a body as is described above. Inflammation of the mucous follicles lining the cervix, explains the abundant ropy discharge; and its alkaline nature accounts for the excoriation of the os. The monthly repetition of expelling a voluminous body through the neck of the womb, counteracted the curative effects of the treatment adopted. The writer says he has never met with a case of deciduous dysmenorrhœa which was not accompanied by inflammation of the neck, which he believes to be the sequel, and can not induce that condition which causes the mucous membrane of the womb to exfoliate. It is only when distinct symptoms of internal metritis are met with between the menstrual periods, that it can be fairly considered a cause of exfoliation. The prognosis he considers bad. He has derived benefit from leeching the womb before menstruation, and the treatment adopted in this case. The tendency to exfoliation is sometimes worn out, but often the patients become disheartened at obtaining no relief, and seek other advice; he therefore does not feel able to attribute the radical cure to any one remedy. The coincidence of uterine inflammation, whether cause or effect, shows the utility of leeches to the neck of the womb, of cooling or astringent injections, and of mercurial and belladonna ointment applied to the abdomen. The condition of the os uteri indicates the local application of the nitrate of silver. By dilating the neck of the womb, we accustom it to allow the passage of a foreign body without too much pain, and thereby afford great relief.—*American Medical Times*.

We lately had an interesting case of membranous dysmenorrhœa, in which the membrane discharged presented, in its structure, a perfect cast of the mucous membrane of the uterus. It was not, however, discharged entire, but in pieces. The lips of the mouth of the womb were much congested and red, having much the appearance presented by internal hemorrhoids. This condition was removed by the use of a strong solution of Monsel's salt. The neck of the womb was then dilated by sponge teats, and the same solution was applied to the internal surface of the uterus. After a treatment of some months the discharge of the membranes was entirely arrested, and the patient is now pregnant, though upwards of forty years of age, and ten years having elapsed since the birth of her last child. The disease, however, is one that is rarely cured. It is useless to attempt to relieve it by general treatment, and we believe that the application of some strongly astringent solution, such as Monsel's salt, or the perchloride of iron, is the most useful remedy. It is necessary, however, that they should be freely applied over the whole of the internal surface of the uterus.—Ed.

Midwifery.—On the Cæsarean Operation.

At a recent meeting of the Obstetrical Society of Berlin, Dr. Winckel of Gummersbach (in the neighborhood of Cologne) made a short communication regarding thirteen cases of Cæsarean section which he had performed.

Dr. Winckel described the mode of life of the lower classes in his native place, and insisted upon their uncleanliness, poverty, deficient use of animal food, and want of proper care at the time of their confinement, as causes of the osteomalacia which is so common there. During a period of nineteen years, he had been obliged to perform the Cæsarean operation thirteen times. Of these thirteen operations, eight were rendered necessary by osteomalacia, five by rickets.

In four cases gastrotomy alone was necessary, as the child, in consequence of the rupture of the uterus, was already in the cavity of the peritoneum; and of these four, two occurred in one woman, who had on a former occasion been delivered by the Cæsarean operation, and where, on the last occasion the delivery of the child was again followed by cicatrisation of the uterus. Of these three women, two survived; and indeed the result of the operation generally was favorable, as six women survived, of whom one, as above related, had been three times operated upon, so that there was a proportion of eight recoveries to five deaths.

Dr. Winckel ascribed this favorable result to the circumstance of his having discarded all meddlesome interference. Compelled by the necessities of country practice to leave to themselves for a considerable time his patients who had been operated upon, he had directed his principal attention to the careful closing of the wound, which he accomplished by five stitches with an equal number of five needles between them. He never changed the dressing which he placed over the wound; and it generally adhered so closely, that its removal would have caused great irritation. Internally, he administered in most cases an infusion of ipecacuanha combined with opium; and he had almost never seen extensive inflammation supervene,—indeed, in one case, he found his patient, on the sixth day after the operation, out of bed and standing by the washing-tub. The inadequacy of assistance had taught Dr. Winckel a practical precaution for preventing protrusion of the intestines. As soon as he opened the womb, an assistant inserted a finger into the upper angle of the wound in the uterus, and drew into a position with the angle of the abdominal wound, so that the intestines could not protrude, whilst the operator had both hands free for the extraction of the child. In every operation, the patient was put under the influence of chloroform.—*Edinburgh Med. Journal, from Monatsschrift fur Geburtskunde und Frauenkrankheiten.*

CONSERVATIVE SURGERY.—In the summer of 1846 (I was then living in Leicester-place) a servant drove up to my door in a street cabriolet—she had come from Wellington street, Strand—and requested me to return with her to see her master, a gentleman of more than seventy years of age, who had fallen down and seriously injured himself. Anticipating some occasion for strapping, lint, &c., I stayed long enough to provide myself with them, and then returned with her as quickly as the crowded state of the thoroughfares would permit. On arriving at the house I was hurried up to the drawing-room, where I was met by my patient, who, holding a handkerchief to his face, said, "Doctor, I have cut my nose off." I was at the moment rather incredulous, but his daughter soon removed all doubt as to the nature and extent of the injury by showing me the separated portion, which she had picked up from the floor. It was black, cold, and covered with grit and dirt. On examining the wound, I found that the whole of the fleshy end of the nose, together with the alæ and septum, were clean cut away, and the white end of the cartilage exposed. The upper lip was divided transversely throughout its whole extent, and hung down over the mouth. It appeared that this gentleman, on going up stairs, had stumbled near the upper step, and, trying to recover himself had fallen forwards against a wooden flap placed at the drawing-room door, the sharp edge of which had come in contact with his nose, first compressing it and then separating it from the face.

For a moment I hesitated what to do, but thinking the separated part would be as good a dressing as any other to the exposed surface, and that the patient's hope (though I had none) of its re-union would give time for him to reconcile himself to his ultimate loss, I determined on re-adjusting it. This was easily enough done. The grit was wiped from it, and being carefully replaced, it was retained *in situ* by adhesive straps. The edges of the wound of the lip were brought together, and kept so by similar means.

On calling the next day, I observed that the end of the nose—which I had purposely left exposed—had lost the deep-black color that it had when replaced, and bore evident signs of circulation going on in it. There was no discharge from the wound. On the next day, appearances were the same; and on the third, the dressings were removed, when I was as much astonished as gratified to find that the union had taken place throughout the whole extent, and the scar that was left was scarcely perceptible. The lip also united.

Now, the time which had elapsed between the separation and the re-adjustment of the divided parts could not have been less than three-quarters of an hour.—*J. Nichols, M. R. C. P. London.*

NEW PROCEDURE FOR THE LIGATURE OF THE SUPERFICIAL PALMAR ARCH.—"The gravity of the wounds of this artery is entirely out of proportion with its size. The difficulty of checking the hemorrhage arises, on the one hand, from the fact that the blood is supplied in almost equal quantities by the radial and ulnar arteries, and on the other, from the number of collateral vessels given off in so limited a space. Hence it is almost impossible for a solid coagulum to form in the divided extremities of the artery. The superficial situation of the arch, in a region so exposed as the palm of the hand, accounts for the frequency of these injuries. In general, pressure on the site of the wound and on the principal arteries leading to the hand is at first resorted to; but the abundance of secondary hemorrhage soon compels the surgeon to secure the radial, ulnar, or even the brachial arteries, a series of hazardous operations which might be avoided, were it possible to apply a ligature directly upon the extremities of the open vessel. This precept is, however, seldom complied with, on account of the loose description given by anatomists of the exact situation of the superficial palmar arch.

"Dr. E. Bœkel, Fellow of the University of Strasburg, has recently published in the local *Medical Gazette*, some new indications which may guide the operator in his search for this artery, and permit him to secure it without unnecessarily extensive incisions.

"'Place the thumb,' says Dr. Bœkel, 'in the greatest possible abduction, and draw a line from its ulnar edge across the palm of the hand. In front of this, which may be denominated the guiding line, draw a second in a parallel direction, at a distance of a third of an inch nearer to the fingers, or more correctly at an equal distance between the first and middle cutaneous fold of the palm; this is the precise position of the superficial arch, and if the skin and palmar fascia are divided here, the artery will at once be exposed, and found reposing upon a layer of fatty tissue which separates it from the nerves and tendons. No apprehension of wounding these need therefore be entertained.

"'It will perhaps be alleged that no fixed rules can apply to an artery so irregular as the palmar arch; but it must not be forgotten that the anomalies alluded to refer less to the exact situation of the vessel than to the dimensions of its supplying branches. I have performed the ligature about twenty times on the dead subject, guided by these rules, and have never once failed in alighting on the artery in the exact position described.

"'An accurate knowledge of this anatomical detail has another advantage quite as great as that of giving increased facility in finding the artery, viz., it supplies us with the means of avoiding it. Phlegmonous inflammation beneath the palmar fascia, at the same depth of the arch, frequently requires incision, which is never extended towards the wrist without a certain amount of hesitation. The indications I have mentioned will permit the surgeon to use the knife with more boldness, and at the same time with greater safety, and they have done me good service for this purpose.'"—*Medical and Surgical Reporter, from Journal of Practical Medicine and Surgery.*

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DEODORIZING COD LIVER OIL.—The *Louisville Medical Journal* says: "Cod liver or castor oil shaken up with an equal volume of water distilled from off the leaves of the wild cherry tree, in a manner similar to that recommended in the *Edinburg* or *Dublin Pharmacopœia*, for cherry laurel water, and left to rest forty-eight hours before separation, acquires, by this simple operation, an extremely sweet perfume, and agreeable taste of almonds; the taste remains as long as the digestion lasts. Oil flavored in this way, could be taken by many persons who reject it in its natural state. Castor oil is not affected in its purgative action by this process."

New Mode of making Compression in Popliteal Aneurism.

BY DR. BLAND.

DR. BLAND, of Sydney, describes a mode of making pressure in a case of popliteal aneurism which he was induced to contrive in consequence of the patient having refused to continue to submit to other procedures. The patient was placed in bed, on a firm mattress, in a half-sitting position, while the thigh was made to form an inclined plane in the opposite direction to that of the body, the leg and foot being placed horizontally on a soft pillow, in a frame or cradle, raised some ten or twelve inches above the surface of the mattress, and the bed-clothes being kept from the foot by a foot-board. A tourniquet was applied to the groin, its principal object being to divert the stream of blood as early as possible from the inguinal artery into the internal iliac and its numerous branches. Another tourniquet was applied to the upper border of the popliteal space, care being taken not to make any painful amount of pressure on the nerve.

"The direct advantages derived from these arrangements were numerous and important. First, the position of the thigh tended to reduce the force of the blood-stream flowing into the aneurism, while its return by the veins was greatly facilitated. Secondly, the regulated, but gradually-increasing pressure on the inguinal artery, while reducing the stream of blood in that vessel, forced at the same time a larger stream into the internal iliac and its numerous large and ultimately anastomosing branches. The same remark applies to the pressure made on the upper part of the popliteal artery. Thus, every part of the arrangement was made to harmonise. The gradual obliteration of the main arteries concerned, was not only necessarily accompanied with the commensurate expansion of the extreme capillary ramifications, but that very expansion of the capillaries tended greatly to facilitate the obliteration of the main arteries in question; while, from the gradual manner in which this great change was brought about, the change itself was effected without pain or danger. The torniquets each consisted of a light but strong iron ring instead of a strap. Each ring fitted a hinge on one side and immediately on the opposite side the ring readily opened or closed, so as to facilitate its application without in any way disturbing the patient. The pads, too, were not broad, but elongated, so that while the rings afforded a steadiness of position to the instrument in a transverse and vertical direction, an equal degree of steadiness was imparted to them in the longitudinal direction by the two pads attached to each tourniquet. The management of the tourniquets was simple, and attended with no incertitude or trouble. If the pad of either tourniquet began to feel a little tight, that of the other was at once slightly tightened, and then the pad which caused uneasiness was proportionately and cautiously unscrewed, so that the full amount of the requisite pressure was never, even for a moment, dispensed with. All this was carried on without pain or inconvenience to the patient, and in less time than it has taken to describe it; and so readily were the pads managed, that this alternate slight tightening and loosening was not infrequently, towards the close of the treatment, left to the discretion of the patient." At the end of about ten days all pulsation in the tumor had ceased, and at the expiration of a similar period the limb was cautiously extended and flexed, the tumor having become much reduced in size. In a few days the patient was discharged cured.—*Australian Medical Journal.*

Penalty of Overwork.

OVERWORK, and its penalty, worn out brain and early death, are common enough amongst ourselves, but perhaps there is no better example of the beginning, middle, and end of such a case than is afforded by the late Augustus Welby Pugin, a celebrated English architect, and narrated in Mr. Ferry's very interesting "Recollections of Pugin." He was "delicate as an infant;" when at school "he showed ramarkable aptitude for acquiring knowledge," and whether "in Greek, Latin, mathematics, or any other branch of education, would learn in twenty-four hours what it took other boys many weeks to acquire;" he was quick, fluent in speech, voluble, dogmatic, and vehement in manner; he hated children's society, and loved that of his elders. From his precocity of talent, he was largely employed as an artist when a mere stripling, and was designing George the Fourth's furniture at Windsor when sixteen. He entered into business, set up an establishment of artist workmen, got into pecuniary difficulties, and was arrested when eighteen. He married; and was husband, father, and widower before he had completed his twentieth year. Then followed twenty years of the most intense excitement and exhausting labor; rapid journeys; a second and third marriage, and two, at least, most bitter disappointments in love between them; a change of religion, and a perfect tempest of controversial pamphleteering. Habits of life, of rapid and restless locomotion, and of severe labor when at home; rising at six; two hours' hard work before breakfast, "which seldom lasted more than *seven minutes*;" hard work again till dinner, "when his fare was of the simplest description, without wine or malt liquor, and this meal generally lasted *a quarter of an hour*;" after dinner more work till bed time; "when he returned from town he always wrote letters in the railway carriage." What wonder that at the age of forty he became irritable and nervous, and quarrelled with his oldest friends; or, as he described himself, "thin, trembling, changed, and yet working tremendously at times." Soon after, meeting his medical attendant at Ramsgate, where he lived, he told him a story of the foundering of five merchant ships, which was sheer hallucination; this was followed by speedily complete mental decay and early death, just at the period when experience begins to ripen, and a man's early work ought to bear fruit for himself, his family, and the world. Pugin is a man whose genius is seen in every street and every house, in the substitution of the bold, picturesque, Gothic outlines, and harmoniously colored materials of modern buildings, for the monotonous pseudo-classic of the last generation; in the graceful forms of domestic furniture, and in the truer and more natural school of art. If he had worked less, taken more time at his meals, and quieted his brain with tobacco or wine, so as not to live so fast, he might, perhaps, have been living now.—*London Medical Times.*

VENTILATION OF SCHOOL ROOMS.—"It is most lamentable," writes Dr. Laycock, "to see the overcrowding in preparatory schools for young children, usually held in what are or have been private houses, and in which the air supply is wholly insufficient for even maintaining health at all. If schoolmasters were thoroughly imbued with the simple but fundamental truth, that more oxygen is necessary for the brain in action than in repose, they would never rest until they had secured for themselves and their charge at least as ample a supply of air in the class-rooms as is thought necessary for the sleeping-rooms of paupers and prisoners."—*British Medical Journal.*

ORIGINAL PAPERS.

On the Climate of the Mountain Ranges of California, in Relation to the Treatment of Phthisis.

BY JAMES BLAKE, M. D.

In some former papers on Phthisis, published in this Journal, I have recommended the Coast Range of mountains as a preferable locality for the out-of-door residence of consumptive patients during the summer months. At the time I wrote these articles, I had no exact data as to the climate of this locality, my preference being founded on the beneficial influence that a camp life in these mountains had exerted in arresting the progress of the disease, in many of the patients I had sent there. At my request, one of my patients, who passed the last summer there, took the trouble to make a record of the temperature during July, August and a part of September, and the data I have thus obtained, furnish a sufficient explanation of the beneficial effects observed to follow a residence in these localities.

The following figures will enable the members of the profession to judge of the advantages of the climate for consumptive patients. They can, I am sure, be relied on, so far as they go, as I furnished the thermometers, one of which was suspended at the N.W. side of a tree, for the morning and noon temperature, the other on the N.E. side for the evening temperature, and the observations can be depended upon as correctly recorded. The hours at which the observations were taken, do not probably furnish the extreme temperature, as at least in July, the atmosphere has been somewhat warmed at 6 a. m., but the total variations are so slight, that the subtraction of a degree and a half from the 6 a. m. temperature, and the addition of a degree to the 2 p. m. temperature, will probably afford a very close approximation to the truth. The locality of the camp was at a supposed elevation of 4,500 feet, about fifty miles north-west of Colusa, and about twenty miles from the eastern foot hills of the Coast Range. For the sake of comparison, I have appended a statement of the mean temperature, and of the extremes, as observed at Iowa Hill, a locality in the Sierra Nevada, at about the same elevation. The observations were not made at the same time, but in the year 1855. They, however, together with others, show that the climate of the Sierras very closely approximates to that of the Sacramento valley, and therefore it is far less favorable as a summer residence for consumptive patients than that of the Coast Range.

Observations of the temperature were taken three times a-day, 6 a. m., 2 p. m., and 6 p. m. I have only, however, given the monthly average of these observations, the extreme daily range in the month, and the mean daily range; and also the extreme range observed during the month. These data afford sufficient elements to judge of the climate, as far as its temperature is concerned, and when compared with the figures obtained from observations made in the Sierra and the valleys, plainly show wherein its advantages consist.

COMPARISON OF TEMPERATURE, AS OBSERVED ON THE COAST RANGE, AND AT IOWA HILL, ON THE SIERRA, AT AN ELEVATION OF ABOUT 4,300 FEET.

Mean temperature for the Month.

	Max.	Min.	Mean.	
Coast Range, - -	75·6	60·8	66·2	(corrected)
Iowa Hill, - -	90·3	63·7	77·0	(observed)

	Coast Range.	*Iowa Hill.*
Mean diurnal variation, - - -	14·8	26·6
Maximum temperature, - - -	82	97
Minimum temperature, - - -	57	52
Extreme variation, - - - -	25	47
Extreme variation on any day during the month,	20	35

August—Temperature at Camp on Coast Range.

	6 a. m.	2 p. m.	6 p. m.
Mean temperature, - -	55·3	69 5	63·7

Highest temperature during the month, 74; lowest, 47; mean daily variation, 14·2; extreme variation, 29; extreme variation on any one day, 18.

September—First Fourteen Days.

	6 a. m.	2 p. m.	6 p. m.
Mean temperature, - - -	51·5	65·0	57·0

Highest temperature during the month, 76; lowest, 45; mean diurnal variation, 13.5; extreme variation during the month, 31; extreme variation during any one day, 18.

The above figures show that, as regards temperature, our Coast Range, during the summer months, affords one of the most desirable localities for the treatment of our phthisical patients.

The temperature for July, is perhaps, that which is the most agreeable for living out in the open air—the thermometer never below 57 deg., and never higher than 82 deg., and with a variation, during the twenty-four hours, never greater than 20 deg. The comparison between the Sierra, at the same elevation, affords a striking contrast, for, whilst the average diurnal variation, in the first case, is only 14 deg., that of the Sierra is nearly twice as great, or 26·6 deg. An analogous contrast is evident through every important thermometric element of the two climates.

But it is not only in the advantages, as regards temperature, that the Coast Range affords a most suitable climate for phthisical patients, as in this respect it might be equalled, and perhaps surpassed, by many other localities, as for instance, the Sandwich Islands, Madeira, and other sea climates; but in this State, and, probably, in this State alone, are to be found combined all those climatic influences, which are even of greater importance than mere temperature, in the treatment of the disease.

Together with this agreeable temperature, the atmosphere is dry and bracing—almost always calm, and the sky is unclouded for months together. The last summer, there was no rain from the beginning of May until the end of November, so that my patients were not driven in by the weather until November. Towards the middle of September, they left their summer camp, for a lower point on the mountains, gradually descending as the season advanced. Unfortunately, I did not have any observations for other summer months, as it was not until they reached the greatest elevation, at the beginning of July, that observations were commenced. The climate, however, of the lower ranges, is analogous to that at greater elevations, and affords one of the most desirable localities for our patients, during the early summer and late autumn months.

Another important advantage the Coast Range of mountains possesses, is in the abundance of game, so that a good hunter can always keep the camp supplied.

With the return of winter, however, our patients necessarily have to seek other quarters, and, being obliged to change the free mountain breezes for the badly ventilated, sunless rooms of our habitations, a great deal of the good that has been done during the summer is apt to be lost. Should the case be not very far advanced, and the improvement during the residence in the mountains have been as great as usually takes place, with care, our patients can hold their ground, during an average winter, in our coast valleys, or on the lower hills of the Sierra. But where they can manage to leave, they can, by going a few hundred miles down the coast, again enjoy all the advantages afforded by their summer residence in the mountains.

In the northern parts of Mexico, the rainy season, which corresponds to our winter, sets in in June and July, and is over by the end of October, or beginning of November; after which time, no rain falls until May or June. There are many points on the coast, where the mountain range of the Sierra, commences at a slight distance from the sea, and, although the low land is unhealthy, being subject to malarious diseases, yet as soon as a moderate elevation is attained, the climate becomes dry and bracing, and very analogous to that of our own Coast Range during the summer. Fortunately, these localities are now easily reached, as the communication between San Francisco and Mazatlan, is taking place, either by steamer or sailing vessels, three or four times a month. The country is well settled, and as large mining operations, conducted by our countrymen, are being carried on there, all sorts of supplies can be procured. About eighty miles back from the coast, the mountains already have an elevation of some thousand feet, and, although I have no accurate meteorological observations of the climate, yet, from the description of it by those who have passed the winter there, I am confident that it must be very analogous to that of our Coast Range. Our patients thus enjoy a perpetual summer, or, at least, a climate in which they can pass the whole of the year in the open air.

I believe, in no other part of the civilized world, can such favorable conditions be found for treating phthisis, as on this coast. That the disease cannot be cured by drugs, is a fact becoming generally admitted by the profession. That it can be cured by out-door life in the mountain air, is a fact of which I have seen abundant proofs, and which others, who have crossed the Plains, have had opportunities of verifying. My own opinion is, that a large proportion of the cases of phthisis, will be found to yield to one or two years' open air treatment, and where the circumstances of the patient enable him fully to carry out such a plan, this coast offers, I think, by far the most favorable locality of any yet resorted to by phthisical patients.

Case of Poisoning by Laudanum—Belladonna used as an Antidote.

BY JAMES BLAKE, M. D.

G. B., æt. 4 years. Had been sick for three weeks from measles, followed by pneumonia. Was taking a preparation of quinine and iron with nitric acid, and for two days had been improving, although still very weak.

On the morning of April 8th, I was called to see him at 5.30 a m., his father informing me that he was fearful he had given him a teaspoonful of laudanum, by mistake, instead of his medicine. When I arrived I found him insensible, not capable of being roused, breathing very heavily; he had already taken ten grains of ipecac. before I saw him, but now was incapable of swallowing; pupil contracted to a point; skin warm; pulse 100, rather small. After waiting a short time, to see if he could be made to swallow some sulphate of zinc, I sent for some of the fluid extract of belladonna, and going myself to get a stomach-pump, I requested a physician who was in the house to administer three drops, with a little water, as an enema, as soon as it arrived, and to repeat the dose in twenty minutes, should the pupil still remain contracted. The medicine did not arrive until near a quarter-past six, by which time the breathing had become quite stertorous, and the child was becoming black in the face.

On returning at 7 a.m., I found the child quite sensible, wide-awake, asking for drink, and the only apparent effect of the laudanum was that he seemed rather sleepy. I was informed that ten minutes after taking the enema the breathing became more natural, the expression of the countenance improved, and that twenty minutes after the injection, he roused up and asked for water. The child was so much improved, that although the pupil was still contracted, the second enema had not been given.

A further attempt was made to produce vomiting, by giving sulphate of zinc, and warm water and mustard, but unsuccessfully; and, as the stupor seemed to be again coming on, I gave a drop of the extract in water by the mouth, and two teaspoonsful of castor oil. The stupor still increasing, and the hands and feet becoming cold, another enema, containing three drops of the extract was administered, the extremities being kept warm by artificial heat. At this time, the respiration had fallen to eight in a minute, the lips becoming dark. In five minutes after taking the enema, the respirations were twelve in a minute; and in a quarter of an hour, were sixteen, the expression of the face becoming more natural. The child could now be easily roused, took some drink, and was constantly rubbing its nose; pupils still contracted. Stupor again came on, and another enema was given, with three drops of the extract, and being obliged to leave, I directed two drops of the extract to be administered every half hour until the pupil should dilate.

On returning at 11 a.m., I found the child evidently affected by the belladonna; face flushed; skin moist; pulse soft, but full; respirations eighteen in a minute. Three enemata had been administered. Consciousness had been perfectly restored; complained of dryness of the throat; had taken some egg and brandy. The pupil had expanded a great deal, but still rather small. Mucous was collecting in the bronchial tubes and trachea, and seemed to interfere considerably with breathing. There was constant movement of the tongue, caused apparently by twitching of submental muscles. No attempt at coughing was made, although the child was strong enough to sit up, and to change its position, it appeared as if the reflex sensibility had been destroyed. Discontinued the use of the belladonna, and give enemata with turpentine and castor-oil, until the bowels were moved.

2 p.m. Flush has gone off the face; pulse not so full, about 100; pupils more dilated, about natural. The bowels have not been moved, although two enemata, with castor-oil and turpentine, have been given, and two with soap and water. During the last half-hour, has been more drowsy; respiration twenty-four; evidently considerable secretion in the air-passages, and no effort to cough; at present cannot swallow. Ordered enema, with croton-oil and turpentine; but the child evidently sinking from asphyxia. The bowels were moved at 3 p.m., but the child died asphyxiated at 4.40 p.m., or about thirteen hours after taking the laudanum.

I have reported this case, although terminating fatally, in order to call the attention of the profession to the use of belladonna, as an antidote to poisoning with opium, and *vice versa*, of opium as an antidote in poisoning with belladonna. From the marked relief afforded by the administration of the belladonna, and from the power it exercised on each repetition in rousing the child from a state of coma, it is evident that it exerts a specific influence over some of the worst symptoms produced by opium. The return of insensibility, both mental and organic, was well marked, and was renewed at each dose of the medicine. Unfortunately, the reflex susceptibility of the mucous membrane of the air-passages to stimuli, seemed to be diminished, as the child made no effort at expectoration after it was once fully under the influence of belladonna. Owing to the copious secretion caused by the subsiding pneumonia, the air-passage soon became so loaded as to prevent respiration. Had this not been the case, and had the child possessed a little more strength, I have no doubt but that the case would have terminated differently; in fact, so far as the symptoms of opium poisoning were concerned, they were entirely relieved. The quantity of belladonna administered was not very large, about eighteen drops of Thayer's Fuid Ext. My object was to give as little as possible, being afraid about expectoration.

In the last number of the *American Journal of Medical Sciences*, Dr. Lee has an article "On the Antagonistic Effects of Opium and the Mydriatics illustrated by Cases of Poisoning in the Human Subject." He relates three cases in adults, in which the symptoms of poisoning by stramonium, were speedily relieved by the administration of half-grain doses of morphine every half hour, until two grains had been taken, and, in one instance, until the patient had taken three and a half grains of morphine, besides eighty drops of laudanum.

He relates another case, in which a poisonous dose of belladonna had been taken by a child six years old. "Twenty drops of laudanum by the mouth, and the same amount by the rectum, were simultaneously administered, and at intervals of half an hour, the dose of twenty drops was repeated until the patient had taken 120 drops in all." In three hours, the child was well, and running about the room.

In another case, in a child two years old, which had been poisoned by laudanum, the tincture of belladonna was administered in fifteen drop doses every twenty minutes, until four doses were taken. The child, in about two hours, was, to all appearances, well.

Dr. Lee then alludes to other cases that have been published, evidently showing that the one poison neutralizes the effect of the other.

* * *

REVIEWS.

A Treatise on Gunshot Wounds. By T. Longmore, Esq., Deputy Inspector of Hospitals, &c. Philadelphia: J. B. Lippincott & Co.

For sale by Roman & Co., Montgomery street, San Francisco.

This is a valuable little treatise on the subject on which it more particularly treats, being a reprint from an article in Holmes' System of Surgery, the source from which it is taken, however, not being acknowledged. This want common honesty on the part of the publisher, does not render the work less valuable as a special treatise; in fact, to those who are acquainted with the high character of the writers who have treated the various subjects in Holmes' work, it would have been an additional guarantee for its merits.

It would be impossible for the subject of gunshot wounds to be treated in a more practical form than in the present work. Mr. Longmore was actively engaged as Surgeon in the Crimean War, and being Lecturer on Military

Surgery at Fort Pitt, he has had an opportunity of witnessing the results of wounds and treatment on those who have been sent home from the Indian campaign.

In noticing in our February number Macleod's Surgery of the Crimean War, we had occasion to remark on what we considered to be the too free use of venesection recommended in wounds of the chest. On this subject, Mr. Longmore writes:

"The extensive bleedings formerly recommended in all penetrating gunshot wounds of the chest, are now practiced with much greater limitations—indeed, should never be employed simply with a view to prevent mischief from arising. Venesection carried on to a great extent does harm by lessening the restorative powers of the frame. It appears to interrupt the process of adhesion between the pleural surfaces and the steps taken by nature to repair the existing mischief, while it leads the injured structures into a condition favorable for gangrene, or encourages the formation of ill-conditioned purulent effusions. When inflammation has arisen, venesection may be joined with other means to control its excessive action, and to give relief, which it certainly does, to the patient; and where hemorrhage is manifestly going on internally, it may be practiced with a view of draining the blood from the system and more speedily induce faintness, to give an opportunity to the pulmonic vessels to become closed; but, even when thus applied, the general state of the patient will not be unconsidered by a judicious surgeon, nor caution neglected, lest the venesection cause him to sink more rapidly from the additional shock to the system and abstraction of restorative force. Taking away blood certainly does not prevent pneumonia from supervening, but occasionally seems to give the inflammation, when it arises, more power over the weakened structures, or even to cause it to be accompanied with typhoid symptoms. Many cases will be found in the various published records derived from the Crimean campaign, where favorable recovery has taken place after wounds of the lung without venesection being at all resorted to as part of the treatment."

In his remarks on gunshot fractures of the femur, Mr. Longmore has to regret, as have we all, that the promises afforded by the undoubted progress of conservative surgery, did not meet with their realization in the Crimean and Italian campaigns. He observes:

"Attention was specially directed in the late Crimean campaign to the question of the proper treatment of these injuries, and expectations were generally held that the advanced experience in conservative surgery would lead to many such cases terminating favorably with preservation of the limb, which previously would have been subjected to amputation. * * With regard to gunshot fractures in the middle and lower third of the femur, the experience of the French and English armies in the Crimea has tended to confirm the doctrine of the older military surgeons, that many lives are lost which might be otherwise preserved, by trying to save limbs; and that of the limbs preserved, many are little better than incumbrances to their possessors. In the late Italian battles, the practice of trying to save lower extremities, after comminuted fractures in these situations of the thigh, appears to have been abandoned. Eight cases of union after compound gunshot fractures of the femur in these situations have, however, returned from the late mutiny in India; and this was a much larger proportion than was that of the recoveries from the Crimea. Dr. Williamson, who records these cases, is inclined to attribute this success in a great measure to the use of dooleys for the conveyance of wounded, and argues that it would be advantageous to introduce them into European warfare. But wounds generally, where proper care is taken, heal more favorably in southern latitudes, east or west, probably owing to the climate admitting of so much more free an access of fresh air by day and night to the patient than can be afforded, without inconvenience, in colder and more variable climates. The dooley is most advantageous and comfortable as used in the East, where it is an ordinary mode of conveyance among all classes, and the bearers—a special race in each Presidency—are trained from childhood to the occupation; but, from experience of the peculiar habits and tenets of these men, both Madrassees and those of Bengal, it seems scarcely probable that they would prove efficient, even if they could exist, or that their wants could be provided for in the numbers necessary to be serviceable, with armies in northern latitudes. French surgeons have remarked how much more favorably, *cæteris paribus*, wounds heal in Algeria, where they have only the same kinds of conveyance for wounded as in Europe; and the difference is accounted for by the favorable influence in this respect of a warmer climate."

We have no doubt but that the more favorable results observed to follow attempts to save the limb in warmer climates are owing, as Mr. Longmore observes, to increased facilities for giving the patients fresh air. In an interesting discussion, in the Academie de Medecine at Paris, on the operation of ovariotomy and resection of the hip-joint, it was observed that these operations at Paris, (where, however, they had been but rarely performed) had almost invariably been followed by fatal results, whilst in this country and in England, the large number of the successful cases fully justify the performance of these operations.

This marked difference in the results of operations in Paris and in London has been generally acknowledged to be owing to the better ventilation and other hygienic conditions, which are found in the London Hospitals. Much as the importance of pure air has been insisted on of late years, we are convinced that as yet, even members of the profession are but beginning to appreciate its impor ance in the treatment of disease, while amongst the public, the grossest ignorance on the subject still prevails.

To those of our readers who do not possess Holmes' System of Surgery, we cannot recommend a more useful work on the subject of guushot wounds than Mr. Longmore's.

CHINESE EMIGRATION AND THE PHYSIOLOGICAL CAUSES OF THE DECAY OF A NATION. By Arthur B. Stout, M. D., San Francisco.

THIS pamphlet has evidently been written to guard our State against an evil which the author considers will be entailed on our posterity, by the amalgamation of the Caucasian and Mongolian races. Physiologically speaking, we think the author is right, as there can be no doubt but that a mixed race would have a tendency to deteriorate the standard; but looking at the question in a social and practical point of view, we believe that the evils which Dr. Stout dreads are entirely imaginary. Differences in color, social position and natural instincts, will effectually keep the races as distinct to the end of time as they are at the present day, unless, indeed, it should appear that a slight Mongolian cross would tend to improve the Anglo-Saxon, for cattlebreeders have discovered that advantages can sometimes be gained by crossing, even with inferior races. Socially and economically speaking, we think Chinese labor can be employed to advantage in developing the resources of our country, and as long as the Chinese are distinguished from the white population by being deprived of certain social and political privileges, which, as an inferior race they have no right to enjoy, so long will there be little danger of amalgamation.

BORDER LINES OF KNOWLEDGE IN SOME PROVINCES OF MEDICAL SCIENCE. By Oliver Wendell Holmes, M. D. Boston: Ticknor & Fields.

WE would recommend to those of our readers who can enjoy an intellectual *bonne bouche*, the perusal of this interesting little brochure. In it the author takes a rapid sketch of some portions of the frontier ground, that separates in medical science, the known from the unknown. He acts as our guide in an intellectual pic-nic, pointing out to us the pleasant clearings that science has already made in the dense forest of ignorance. We hardly dare allow ourselves to commence quotations, not from any difficulty in knowing where to begin, but from the danger of not knowing where to leave off. In his introductory remarks, he observes:

"Science is the topography of ignorance. From a few elevated points we triangulate vast spaces, enclosing infinite unknown details. We cast the lead, and draw up a little sand from abysses we shall never reach with our dredges.

"The best part of our knowledge is that which teaches us where knowledge leaves off and ignorance begins. Nothing more clearly separates a vulgar from a superior mind, than the confusion in the first between the little that it truly knows, on the one hand, and what it half knows on the other."

When pointing out some of the more advanced outposts of chemical science, he observes:

"These facts of allotropism have some corollaries connected with them rather startling to us of the nineteenth century. There may be other transmutations possible besides those of phosphorus and sulphur. When Dr. Prout, in 1840, talked about azote and carbon being "formed" in the living system, it was looked upon as one of those freaks of fancy to which philosophers, like other men are subject. But when Professor Faraday, in 1851, says, at a meeting of the British Association, that 'his hopes are in the direction of proving that bodies called simple were really compounds, and may be formed artificially as soon as we are masters of the laws influencing their combinations'—when he comes forward and says that he has tried experiments at transmutation, and means, if his life is spared, to try them again—how can we be surprised at the popular story of 1861, that Louis Napoleon has established a gold-factory, and is glutting the mints of Europe with bullion of his own making?"

There is one point where chemistry and physiology come into contact to which our author has not alluded, and yet it is one which is peculiarly interesting, as showing the subordination of chemical forces, (or at least what we are accustomed to consider as such,) to form, in the reactions that take place in living beings. Many years ago, we proved that substances when introduced directly into the blood of living animals, ceased to act according to their commonly received chemical properties, the reactions that followed being determined by the isomorphous relations of the substance employed; for instance, that a salt of the protoxide of iron when introduced into the blood, should be comparatively inert, acting as magnesia, or many other substances with which it has few chemical resemblances, but with which it is isomorphous, whilst the introduction of even a small portion of a salt of the peroxide of iron, was followed by violent reactions, which resembled those produced by salts of alumina and chromium, substances with which the peroxide is isomorphous.

After pointing out the discoveries that have been made in the department of minute anatomy, and the theory of cell life, Dr. Holmes observes:

> "The *mechanism* is as clear, as unquestionable, as absolutely settled and universally accepted, as the order of movement of the heavenly bodies, which we compute backward to the days of the observatories on the plains of Shinar, and on the faith of which we regulate the movements of war and trade by the predictions of our ephemeris.
>
> "The *mechanism*, and that is all. We see the workman and his tools, but the skill that guides the work and the power that performs it are as invisible as ever. I fear that not every listener took the significance of those pregnant words in the passage I quoted from John Bell—'*thinking to discover its properties in its form.*" We have discovered the working bee in this great hive of organization. We have detected the cell in the very act of forming itself from a neuclus, of transforming itself into various tissues, of selecting the elements of various secretions. But why one cell becomes nerve and another muscle, why one selects bile and another fat, we can no more pretend to tell, than why one grape sucks out of the soil the generous juice which princes hoard in their cellars, and another the wine which it takes three men to drink—one to pour it down, another to swallow it, and a third to hold him while it is going down. Certain analogies between this selecting power and the phenomena of endosmosis in the elective affinities of chemistry we can find, but the problem of force remains here, as everywhere, unsolved and insolvable. * * * * It is a mistake, however, to think, the mystery is greater in an organized body than in any other. We see a stone fall or crystal form, and there is nothing stranger left to wonder at, for we have seen the Infinite in action."

When speaking of the progress made in rational medicine during the last few years, he observes:

> "The more you examine the structure of the organs and the laws of life, the more you will find how resolutely each of the cell-republics which make the *E pluribus unum* of the body maintains its independence. Guard it, feed it, air it, warm it, exercise or rest it properly, and the working elements will do their best to keep well or to get well. What do we do with ailing vegetables? Dr. Warren, my honored predecessor in this chair, bought a country-place, including half an old orchard. A few years afterwards I saw the trees on his side of the fence looking in good health, while those on the other side were scraggy and miserable. How do you suppose this change was brought about? By watering them with Fowler's solution? By digging in calomel about their roots? Not at all; but by loosening the soil round them, and supplying them with the right kind of food in fitting quantities.
> * * * * The traditional idea of always poisoning out disease

> as we smoke out vermin, is now seeking its last refuge, behind the wooden cannon and painted port-holes of that unblushing system of false scientific pretences, which I do not care to name in a discourse addressed to an audience devoted to the study of the laws of nature in the light of the laws of evidence. It is extraordinary to observe that the system, by its reducing medicine to a name and a farce, has accustomed all who have sense enough to see through its thin artifices to the idea that diseases get well without being "cured," should now be the main support of the tottering poison-cure doctrine. It has unquestionably helped to teach wise people that nature heals most diseases without help from pharmaceutic art, but it continues to persuade fools that art can arrest them all with its specifics."

Strange, indeed, is it that homœopathy, which together with the natural progress of the science, has been the chief means of disabusing the minds of intelligent medical men of the absolute necessity for giving drugs whenever the system got a little out of tune, should now tend to keep up in the mind of the public, this delusion of the necessity of some antidote to every ailment. It is, undoubtedly better that an anxious mother should administer to every pain or ache of master Johnny or little Mary an homœoquackic nothing, than a dose of calomel or jalap; but far better would it be still if she could believe that "Guard it, feed it, air it, warm it, exercise or rest it properly, and the working elements (in her children as well as in others), will do their best to keep well or to get well." Strange it is that a rational being must for ever require some irrational dogma to prompt him to do even what is right.

We believe Dr. Holmes' work can be obtained at the principal bookstores in the city.

* * *

HYDROCHLORATE OF AMMONIA.—There is a remarkable similarity in the general effects of this salt and the chlorate of potassa. The Germans, especially, have long placed an estimate upon it as an alterative, which has surprised those who have not had considerable experience in its use. Lotions of varying degrees of strength of solution may, in the large proportion of cases, be advantageously substituted for the more expensive stimulating liniments usually directed. It thus forms a cheap and efficient rubefacient and discutient, well adapted for prescription in general practice. In many forms of cutaneous disease, characterized by temporary improvement under the application of local remedies of a stimulating nature, it is particularly beneficial. Thus, it is especially useful, both exhibited internally and employed externally, in connection with the arsenicals in treatment of original squamous affections, and where, in other varieties of tegumentary eruption, the furfuraceous surface is presented. Acne is often well controlled by its local application. As a discutient of slow glandular enlargements, it may rank with or next to iodine, and has the advantage that it does not discolor the part of application.

As an alterative, liquefacient, resolvent, or promovent of cell and tissue metamorphosis, it is worthy of the high rank which our German confreres assign it—ordinarily improving digestion and renovating the secretions in a marked degree. Western practitioners, who have had much experience with it, given in full doses, in combination with quina, assert that the system is left in a much better condition than when the latter is given singly, and that the necessity for administration of mercurial and other carthartics is very materially lessened or altogether removed.—*Chicago Medical Journal.*

EDITOR'S TABLE.

☞ HAVING changed our Office to No. 211 Bush street, between Montgomery and Sansome, those who wish to communicate with us will find us there between the hours of two and four p. m.

IN the present number, we have reported the history of a case of poisoning which involves a principle likely to exert an important influence, not only on our treatment of analogous cases, but even on our general views in therapeutics. The evidence of the antagonistic action of certain poisons is a fact which to a certain extent has been acted upon; but it is only within the last few months that it has been shown that violent poisons, such as belladonna, stramonium, and veratrium, can be given with advantage in doses, when opium or strychnine have been taken, which, in other circumstances, would prove rapidly fatal—or, in other words, that the presence of a fatal dose of one poison in the system enables it to bear another poison with impunity, and even with benefit. In the case of inorganic poisons, we have, indeed, been in the habit of administering antidotes which we anticipated might render them inert, by forming insoluble chemical compounds in the stomach and intestines. We have even endeavored to elimate certain deleterious agents from the system, such as lead and mercury, by administering substances which should form soluble combinations with them, and thus enable them to be removed; we thus applied in the living body the knowledge we had obtained in the laboratory. But in the case of the more violent organic poisons, our chemical knowledge was entirely at fault—it had not cast even a ray of light on the reactions produced by these mysterious agents on the living organism—as acids or bases, as compounds of carbon, hydrogen and nitrogen, the most virulent poison had nothing to distinguish it as such, under a purely chemical point of view, from thousands of harmless compounds. It was only when tested in the laboratory of the living organism that they revealed their latent power, and even then by giving rise to reactions which chemistry up to the present time has been totally unable to detect, and to which, therefore, it could suggest no antidote. Mixed together in a test tube, opium and belladonna remain apparently without the slightest reaction on each other, but when brought into contact with the living tissues, they each produce violent reactions, which fortunately are now found to a certain extent to neutralize each other. The fact that large and fatal doses of the more virulent vegetable poisons can be taken with impunity, provided that at the same time a fatal dose of an equally virulent and fatal poison is swallowed, is one which will not only meet with a practical application as a means of saving numberless lives, but which will open up quite a new field in the philosophical investigation of the action of medicines, and in the elucidation of some of the most interesting questions in physiology. In a memoir, read before the Royal Society of London more than twenty years ago, on the subject, I observed:

> "The effects produced by poisons are, in fact, but the most striking instances—the extreme cases, in a series of phenomena, which comprehends not only the entire destruction of the functions of an organ, but even the slightest modifications which these functions may receive. It is not the mere explanation of a few isolated phenomena that is embraced by this part of physiology, for the prespects that its pursuits presents to us are, perhaps, as unbounded as any that ever excited the imagination of a Paracelsus, the vista it opens to our view promises, apparently, to conduct us farther into the arcana of nature, than the daring of Prometheus would have led him."

[We would plead in extenuation of our classical enthusiasm, that we were twenty-three years younger when we wrote the above.

Eheu fugaces Posthume Posthume,
Labuntur anni.]

Under a purely scientific point of view, we believe this newly discovered fact of the antagonism of poisons, the most important step that has been made in experimental physiology for many years. It opens up a field of research with organic compounds, analogous to that we investigated with inorganic substances, (when proving the analogous action of isomorphus substances on living tissues. The subject, however, is more likely to address itself to our readers under a practical point of view, and it is in this light that we would direct to it their attention. Besides the cases alluded to by Dr. Lee which we have quoted, we also find a notice of some experiments performed on the lower animals by Dr. Woakes, in England, tending to show an antagonism between strychnine and veratrine. I can find no case recorded in which the fact has been tested on the human subject, although in a bad case of strychnine poisoning it might be worth trying, as dogs that had taken poisonous doses of strychnine, recovered after poisonous doses of veratrine had been given as an antidote.

Health of San Francisco for March.—During the last month, the number of deaths in the city was 207, being a decrease of 15 on the preceding month. Small-pox was rather more fatal than in February, 20 cases having been interred in the Lone Mountain Cemetery, against 15 in the preceding month. We believe, however, that is now decidedly on the decrease. The mortality amongst the Chinese must have been considerable, as they number about one-tenth of all the interments. Consumption carried off 28 of 139 interments in the Lone Mountain Cemetery, and 7 were entered as dying of typhoid fever, a decided increase over the number of last month.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late JOHN W. FRANCIS.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from eminent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the SUMMARY OF MEDICAL SCIENCES will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "THE EPITOME"—and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. WELLS, M. D.—DEAR SIR: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage aud can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Dislocation of the Head of the Femur into the Obturator Foramen, with Preservation of the Movements of the Bone.

BY PROFESSOR SEDILLOT, OF STRASBURG.

Professor Sedillot has communicated a highly interesting paper to the French Academy of Sciences, on the subject of the immediate preservation of the movements of the inferior extremity in cases of accidental displacement of the head of the femur into the obturator or thyroid foramen. The difficulty or absolute impossibility of the movements of the limb has invariably been considered as the most constant symptom of recent dislocations, especially in diarthrodial joints. It seems, indeed, difficult to imagine how a bone extruded by some violent effort from its articular cavity, an injury necessarily involving laceration of the ligaments, muscular tension, and changes in the natural position and direction of the limb, can possibly still allow of motion, so painless and extensive as not to interfere materially with the functions of the extremity. Surgeons, therefore, have neither surmised nor admitted that a patient, suffering from dislocation, may uninterruptedly pursue his usual avocations, as if he had merely undergone some slight contusion. Instances of the kind exist, however, and are deserving of notice, inasmuch as they may induce a dangerous degree of security, and lead to disastrous errors of diagnosis.

This is the object of M. Sèdillot's paper, and, in support of his views, the author adduces several cases of luxation of the femur forward and downward, in which the patients were nevertheless able to walk immediately after the occurrence of the accident, and to exercise as usual, without much pain or lameness. It is, moreover, for the purpose of cautioning the practitioner against an error that might readily be fallen into in such cases, that M. Sèdillot enlarges on these circumstances which have not hitherto been pointed out. When the attention of the observer is led astray by the absence of any marked difficulty of locomotion, the gravity of the injury may easily escape detection, and a minute examination of the relative changes of situation of the pelvis and femur may appear unnecessary, in consequence of the apparent unimportance of the symptoms. The persistency of the movements and functions of the limb, says M. Sèdillot, is accounted for by the fulcrum afforded to the head of the femur by the depth and shape of the margin of the obturator foramen. Despite the immediate and spontaneous restoration of the power of using the extremity for the purposes of progression, the leading features of the displacement are nevertheless perfectly discernible, as may be seen in the instance of a young soldier who was admitted into the hospital of Strasburg for a lameness of obscure origin, which had even been suspected of being simulated. M. Sèdillot relates the case as follows:

Case. G. P., æt. 18, a private in the 4th Rifles, fell, while in a boat, on the 6th of October, 1860, but was unable to give any account of the circumstances which accompanied his fall. The patient continued to walk, but observed, three days after the accident, that his right leg and thigh were slightly turned out, so as to induce a certain amount of lameness.

He was admitted into the Hospital on the 22d of October, 1860, when his condition is described as follows:

1. The right thigh and leg were slightly everted.

2. The anterior and superior spine of the ilium were found to be three lines lower than the same process on the opposite side.

3. The lateral breadth of the hips from the mesial line running along the trochanter major was seven inches on the left side, and six only on the right.

4. The distance from the mesial line of the body to the summit of the trochanter, was seven inches and three lines on the left side, and ten inches on the right. (The lowering of the right side of the pelvis and the elongation of the limb must be recollected.)

5. From the anterior and superior spine of the ilium to the summit of the patella, seventeen inches on the left side, and eighteen inches and a half on the right.

6. The circumference of the upper part of both thighs was the same, viz., eighteen inches and three-quarters.

7. Marked flattening of the right, and prominence of the left trochanter.

8. The apparent elongation of the right leg was twenty-two lines.

9. In walking, the right leg and thigh were turned outwards.

10. The right trochanter appeared to have sunk in; the furrow below the right buttuck was lowered.

11. Abduction of the limb was perfectly unobstructed. But the right thigh could be brought into a line with the axis of the body only when the foot was everted.

12. The right foot could by no effort be turned inward.

13. In abduction the right thigh could be bent, but not in adduction.

14. The movements of adduction, and especially of abduction of the left leg, were singularly extensive.

Reduction—The patient, who had taken chloroform, was laid horizontally on the uninjured side, and, for the purpose of extension, a sheet folded lengthwise was passed under the perineum, and its two ends, carried one in front and the other at the back of the pelvis, were twisted and secured; coaptation and counter-extension were performed by bending the thigh, imparting a rotatory motion to the head of the bone, and finally by bringing it into adduction and rotation inwards; reduction was thus effected twenty days after the accident.

The natural shape and dimensions of the limb were entirely restored.

For six days the patient remained in bed, the right limb secured in extension and adduction, and attached to the left by a roller above the knees and malleoli.

P—— was allowed to rise on the seventh day. He perceived no lameness, and three weeks after he left the hospital to join his regiment.

M. Sèdillot's cases tend to show that the displacement of the head of the femur into the obturator foramen, when the movements are preserved, is characterized by an elongation of the limb from five to fifteen lines, a symptom which is rendered more evident by the lowering of the hip-joint on the diseased side; the outward rotation of the extremity and the abduction of the foot; the prominence formed by the head of the bone in the vicinity of the pubes, and the depression existing in the spot it should naturally occupy; the impossibility of bending the thigh in adduction, and the ease with which this is accomplished when the limb is in abduction. Reduction is seldom difficult, even when the dislocation is of several weeks standing, and is effected by traction outward of the upper part of the thigh, the knee being turned inward and forward, and placed in adduction when the head of the bone is supposed to be on a level with the acetabulum. In order to obviate a relapse, the only precaution necessary is to keep the injured extremity extended and turned slightly inward. The cure is rapid and complete. When the parts have not been replaced in their proper position, the bones adapt themselves to each other, and the patients are frequently enabled to use the limb, remaining, however affected with permanent lameness.—*Journ. Pract. Med. and Surg*, March, 1861, from *American Journal of Medical Science.*

We have copied the above, as the subject is one of practical interest We have lately met with two cases of this form of dislocation, in neither of which had the bone been restored to its position. In the first case the diagnosis had not been made out until some days after the accident, and the bone could not be replaced. In the second case, some months had elapsed before we saw it, and had it been treated as rheumatism.—ED.

METHODS OF PREVENTING PITTING OF THE FACE IN CONFLUENT SMALL-POX.—During the last five years, Dr. Stokes has employed gutta-percha and collodion in a considerable number of cases of confluent small-pox, for the purpose of preventing pitting in the face. In most of the cases the crust came off in large flakes or patches, composed of the dried exudations and the covering material, leaving the skin uninjured. This kind of treatment was most adapted to those presenting a more sthenic type. Dr. Stokes considers that the application of poultices over the face is the surest method of preventing disfigurement in small-pox. Their use should be commenced at the earliest period, and continued to an advanced stage of the disease. In most cases they may be applied even over the nose, so as to cover the nostrils. The plan should fulfil three important indications of treatment: namely, to exclude air, to moderate the local irritation, and to keep the parts in a permanently moist state, so as to prevent the drying and hardening of the scabs. The best poultices is formed of linseed meal, which should be spread on a soft material, such as French wadding, and covered with gutta-percha paper or oiled silk. The conclusions to which Dr. Stokes arrives are the following: 1. The chances of marking are much greater in the sthenic or inflammatory than in the asthenic or typhoid confluent small-pox. 2. Considering the change in the character of the disease observed during late years, we may explain the greater frequency of marking in former times. 3. In the typhoid forms of the disease, the treatment of the surface by an artificial covering, such as gutta-percha or glycerine, will often prove satisfactory. 4. In the more active and non-typhoid forms the use of constant poulticing, and of every other method which will lessen local inflammation, seems to be the best mode of preventing disfigurement of the face.—*American Journal from Dublin Quarterly Journal.*

Digitalis in Delirium Tremens.

Several cases have lately been reported in the medical journals of the successful treatment of delirium tremens by large doses of digitalis. We copy the following from the *Medical Times and Gazette* as proving, that even when the ordinary effects of the medicine on the system show themselves, they do not go to an extent to be dangerous. Dr. Williams, of Liverpool, observes:

At noon of Wednesday, August 28, I was requested to see a private patient, whom I have cured of delirium tremens on two previous occasions by a single subcutaneous injection of two-thirds of a grain of sulphate of morphia, dissolved in ♏xx. of water. Since the last attack he had been perfectly sober, until August 13, when he began to drink, but continued to eat as usual until the 20th, from which time he drank brandy, and continued doing so up to the day I saw him. He became delirious on the 26th, and slept none during that or the following night, nor had he eaten food since the 20th.

When I saw him he was perfectly furious, almost naked, and struggling to get out of the house; with difficulty I ascertained that the pulse was 108. 2 p. m.—Administered tinct. digitalis, ℥ss., and persuaded him into bed. In twenty minutes the pulse had fallen to 96, full and soft; tongue loaded. He was still very much excited, and I thought the lowering of the pulse was due to position and soothing conversation. To have another ℥ss. tinct. digit. at four o'clock. 5 p. m.—An hour has elapsed since he took the second dose of the tincture; he has been extremely wild and restless, excepting once, when he seemed to fall into a quiet doze for a few minutes, but awoke as mad as ever. Pulse 96, full, soft, and regular; skin cool, but as he is almost naked, and cannot be induced to lie in bed covered, that is easily accounted for. To have another ℥ss. tinct. digit. at seven o'clock. At 10.30 p.m. had become more manageable, and has been quieter since six o'clock; pulse 96, but wiry, with an uncertainty about an occasional beat; has slight nausea, will take no food, but wants beer continually; to have a little brandy and lemonade during the night, and as much beef-tea as he can be induced to take.

29th.—10.30 a. m.—Has had a bad night, has not slept more than an hour and a half since he took the first dose, but has been vomiting and purging very much all night, with violent palpitation of the heart between six and ten o'clock this morning. He attempted to take beef-tea, also brandy and lemanode, but vomited everything; he is, however quite quiet, talks rationally, and complains much of the palpitation. Pulse 86, full, soft and steady; skin comfortably warm and moist, tongue cleaner; to take ʒss. every three hours, of the following mixture, and as much food as possible:—℞ Bismuth subcarb. ℈ij., sol. morph. ʒj.. æther clor. ʒjss., mucilage Arab. ℥ss., aquæ ad ℥vj., M. 10 p. m.—Has spent the day at Eastham, where he took six and a half glasses of brandy, but no food or medicine. Has had no vomiting or purging since morning; kidneys have acted throughout as usual. He is now quite quiet, but provokingly obstinate, and craving more brandy; pulse 96. All stimulants forbidden; to take his mixture and as much milk, beef-tea, &c., as possible during the night.

30th.—He is so much better of his delirium that his friends allowed him to go to Seaforth alone, as he complained of being ill, and thought a little change would enable him to return to business quicker. His wife says he has had a good night, and she thinks he slept a good deal, has had no stimulants, but drank a large quantity of milk, and from this time steadily recovered.

* * *

TRITICUM REPENS IN IRRITABLE CONDITIONS OF THE BLADDER.—Henry Thompson, Esq., highly extols an infusion of Triticum repens in irritable conditions of the bladder. The form he has adopted for administering the remedy is as follows:

"One ounce of the dried and cut stem is infused in a pint of boiling water for an hour. The liquor removed by straining has been given, unmixed with any other remedy, in quantities varying from twelve ounces to a pint during the twenty-four hours, in several doses. The taste of the infusion is rather agreeable than otherwise; it produces no nausea or derangement of the stomach.

"From notes of the numerous cases in which I have employed it, making at the same time due allowance for the effect of other sources of benefit to the patient, I have arrived at the following conclusions respecting the indications for its use:

"In vesical irritability produced by inflammation of the prostate and neck of the bladder; in severe gonorrhœa, and especially when the inflammation extends backwards; in the pain and spasm caused by calculus, and by aggravated stricture of the urethra, as well as in some cases of obscure disease of the bladder, the good effects of the infusion have been very marked, and it has proved far more efficacious than the buchu, which may fairly be esteemed the most widely applicable and generally useful of our official remedies of this class under such circumstances. In cases of prostatic enlargement in elderly patients it has been of service, but less frequently than in the conditions above named. It has also afforded great relief in renal calculus. A medical man practising in London, who has thus suffered, and very severely, during many years, tells me that 'after trying every approved remedy, it is the only thing that has rendered life endurable.' This is one of four similar cases in which it has been more or less useful.

"In short, whenever micturition is very frequent and painful, depending on hyper-sensibility of any part of the urinary passages from acute and subacute inflammation, with signs of its presence in the urine itself, the symptoms are mostly materially relieved, and the urine becomes clearer. If improvement is produced at all, it is generally very soon after commencing the medicine, and if none can be observed in four or five days, it is not worth continuing to employ it.

"I believe it is important that the plant should be gathered in the spring shortly before the leaves appear; the stem is then to be slowly dried without artificial heat, and cut into short lengths for use. The infusion obtained from material so treated is superior to that made from plants gathered indiscriminately at any time, and also, to the infusion made from the *Triticum repens* which is imported by the herbalists for the purposes of French pharmacy in this country."—*American Journal.*

DR. OSCAR HEYFELDER, Professor of Surgery at the Imperial Medical Academy of St. Petersburg, Russia, author of the latest work on Exsection of Bones, has authorized Prof. Louis Bauer, of Brooklyn, N. Y., to tender his services to President Lincoln, for the United States Army, during the war.

On the Relation of Respiration to Muscular Action, and on the General Significance of Respiration.

BY DR. MORITZ TRAUBE.

THE author first shows that the division of food into tissue-forming and respiratory (according to Liebig's hypothesis) is negatived by the fundamental conditions of animal life. It is wrong to suppose that the consumption of material in animals, as expressed in the respiration, suffices merely for heat production. In respect to the whole range of the animal kingdom, including cold-blooded creatures, one may rightly conclude that the most important function of respiration is the maintenance of muscular activity. The experiments of Lavoisier, and of Regnault and Reiset, prove that, with increase of exercise (muscular movement), an increased amount of oxygen is consumed. By a comparison of torpid, half-torpid, and active lizards, this law was strikingly demonstrated. Pathology shows that any deficiency of respiration (*e. g.*, in certain heart diseases) brings with it the incapacity for muscular activity. The question arises—Into what element of the muscle does the oxygen of the blood fix itself? is it diffused in the fluid of muscle? or, is it associated with the muscular fibre itself?

A lood passes through the capillaries, a portion of the oxygen is set free; this passes through the walls of the vessels, and joins the muscular fibre in the form of an unstable chemical combination, which is capable again of giving up its oxygen to another matter, which is present in the fluid of muscles, and which has a stronger affinity for oxygen than the muscular fibre. The latter is again in a condition to take up a fresh portion of oxygen. This theory the author has developed in a previous work* The combinations formed in the fluid of muscles the author seems to regard as a transition product (Zwischenproduckt) towards water and carbonic acid. This transference of oxygen is effected more rapidly at high than at low temperatures, in warm-blooded than in cold-blooded animals. The deoxidation of the muscular fibre goes on most rapidly under the action of the nerves, but in a manner not yet explained. Since an active muscle by its oxygen oxidises, in a given time, more combustible material, and consequently produces more carbonic acid, than during the conditions of rest, so must the increased amount of carbonic acid derive more oxygen from the arterial blood. In long-continued hard-labor, so much oxygen may be used that the respiratory apparatus is put into most active exercise. Perfect deoxidation of the muscular fibre corresponds with post-mortem rigidity; consequently, we find that heat hastens and cold retards rigidity. Muscular action has the effect of hastening rigidity, whilst the contact of oxygen again dispels it (Brown-Sequard and Stannius). The experiments of Humboldt, Liebig, and Brown-Sequard, taken collectively, prove that the post-mortem rigidity of muscles is produced by the want of free oxygen. According to Traube, the muscular fibre, or rather the fibrinous matter contained in it, is a vital ferment, which transports oxygen from the blood-substances dissolved in the fluid of muscle. From the above theory, the following consequences may be deducted. The muscles in their quiescent state minister to the process of respiration, since they hand over the oxygen of the blood to combustible materials, and reduce the latter—with the formation of heat—to carbonic acid and water. The transitional combustible matters consist, according to Helmholtz, of substances soluble in alcohol; but, according to Du Bois Reymond, of acids. The muscles, then, may be considered as the principal seats of combination and heat-production. The organized part of the muscle is not disturbed in its function.

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* Theorie der Fermententwickelungen. Berlin, 1858.

The theory of Liebig, that the albuminous substances, by their chemical changes, are chiefly concerned in supporting muscular activity, is not borne out by the above conclusions, for non-nitrogenous substances may be equally serviceable, and the urea thus furnishes no estimate for the developed muscular force. From experiments of Bischoff and Voit, it results that the destruction of albuminous substances has nothing to do with the muscular action of the animal organism, but it is highly probable that the decomposition of albumen is effected by a ferment in the liver. The bile, from its contained nitrogen and sulphur, unmistakeably indicates its origin. Kuhne and Hallwachs have proved* that the seat of the conversion of non-nitrogenous benzoic acid into nitrogenous hippuric acid is the liver. The experimentum crucis which proves that the albumens do not participate in muscular action is that of Voit, in which, after extreme muscular action, the excretion of urea was shown not to be increased. It has been shown that increased muscular action requires consumption of oxygen, and that a quantity of matter in muscles is consumed. Did this matter consist of the muscular fibre itself, or of the albumen in the fluid of muscle, then, after increased muscular action, we ought to find much urea in the urine, which is not the case. Although the albumens take no part in muscular action, their presence in very important. They alone are capable of forming the various ferments, of sustaining the growth of organs, and of repairing the loss of substance. They are necessary for the maintenance of substance. They are necessary for the maintenance of mucous membranes, bones, epidermis, nails, hair, &c. They are also required for the *organized* parts of muscle. The decomposition of albumen is essential to the formation of bile. In the carnivorous animals it must also serve for heat formation and for muscular activity. But Liebig has introduced an error in dietetics, in estimating the worth of nutriment by the proportion of nitrogen contained in it. The most striking contradiction to this supposition is furnished by the herbivorous animals, many of which are remarkable for their capabilities for prolonged labor.

After some remarks on respiration, Traube sums up the functions of that act under the following heads:—1. The respiratory process is necessary for cell formation: This is its most general function, because all organized beings, plants as well as animals, require oxygen for the construction of cells; in plants, this is the only use of respiration. 2. Muscular activity: This function is common to warm-blooded as well as to cold-blooded animals; in the latter, muscular activity is the most important object of respiration. 3. Heat production: Although this function requires the greatest consumption of oxygen, yet it is only in warm-blooded animals that has the signification of a truly vital process.—*Edinburgh Medical Journal from Archiv. fur patholog. Anat. and Physiologie.*

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* Pharmac Centralbl, 1857, s. 359.

CHLOROFORM CORRECTING BITTERNESS.—According to Mr. Grave *(Repertoire de Pharmacie,)* chloroform has the property of modifying the taste of certain bitters, and when added to tincture of aloes, gentian, or to sulphate of quinine suspended in water, it nearly altogether removes the bitterness.—*American Druggists' Circular.*

Treatment of Spinal Curvature.

HOLMES COOTE, in one of his recent lectures, makes the following remarks on this subject: There is but one way of correcting spinal curvature, namely, by mechanical support and direct pressure. That pressure must be unremitting, commenced early, and maintained at the proper standard for many months, perhaps for years. The inconveniences attendant on such treatment are considerable, but we have nothing to put in its place. Localized movements may pull and even stretch contracted ligaments, but they cannot guard against their recontraction. But in nearly every case there is a stage in which a moderate amount of support will effect all that is necessary. When the spine first begins to yield, the curve being periodical, as it were, and coming on only in certain postures of the body, or after fatigue, the greatest benefit may be obtained by wearing stays with lateral supports. These side-crutches, introduced so as to present no unsightliness nor demand alteration in the dress, save to maintain the spine in an upright position. The so-called French stays fix in front, but can be tightened by strings which pass from behind forwards and then around the waist. The patient should rest upon the sofa, whenever the back begins to ache. With this mechanical treatment may be combined the use of tonics, proper out-door exercise, and any well-regulated amount of calisthenics. The more decided curvatures, however, are to be treated only by powerful apparatus. The necessary instrument is weighty and strong; if it were not so, it could exert no active influence on the spine, which would press the instrument itself back, instead of yielding before it. The pressure is exerted by pads attached to steel rolls moved with cog-wheels. The object in view is to raise the depressed shoulder, to push as far as possible into place, by gentle yet unremitting force, the displaced bones, by acting on them through the ribs, and to maintain them in their right position until the tendency to curvature has passed away. During all this time the patient may take the usual exercise, and follow her accustomed avocations. The attendance of a surgeon, in a confirmed case, must be very frequent, and extend over twelve months at least. The apparatus may be worn by infants as well as adults, but its management must never be left to the friends of the patient.—*London Lancet.*

PHYSIOLOGIAAL EFFECTS OF OPIUM.—Dr. G. Bodington believes that the possibility of giving large doses of opium in cases of delirium tremens, not only with impunity, but even with advantage, arises from the circumstance that alcohol has to a certain extent the power of controlling the physiological effects of opium. Hence it is that, when the system is, so to speak, saturated with alcohol, opium becomes comparatively innocuous. The author states that the use of opium should be specially guided by the previous habits of the patient, and that the modern salts of the drug seem to be the most dangerous form in which it can be given. "The native opium contains constituent ingredients of a contrary character, which are counteractive of each other. Laudanum, holding all these in solution, is the safest form, inasmuch as the alcohol, the solvent, in some measure acts as an antidote."—*American Journal, from British American Journal.*

Contribution to our Knowledge of Digestion.

BY GEORGE HARLEY, M. D.

Harley treats of the subject under three heads: 1st, Buccan Digestion; 2d Stomachial Digestion; and 3d, Duodenal Digestion.

1st, Buccal Digestion.—Harley experimented on his own saliva, which was collected between meals, and was of course mixed. The specific gravity varied between 1003·9 and 1005·0 (Longet and Bernard give the specific gravity of the human saliva at 1004 to 1008.) He found it to contain a peculiar animal ferment, ptyalin (Berzelius), albumen (Brande), and casein (Simon). A quantitative analysis of 100 parts gave the following:

Water			99·331
Solids			0·669
Ferment	Organic matter	0·391	
Albumen			
Casein			
Mucous and Epithelium			
Chloride of Sodium	Inorganic matter	0·278	
Sulphate of Potash			
Sulphocyanide of Potassium			
Phosphate of Lime			
„ „ Magnesia			
Iron			
			100·000

Harley tested for iron in the saliva of four healthy individuals, and always found it. He denies the truth of Bernard's statement, that the presence of sulphocyanide of potassium is due to decayed teeth producing decomposition of the saliva, and has found it in persons who had not a single bad tooth. He found that one part of freshly scented saliva converted a saturated boiled starch into grape sugar, at a temperature of 38° Cent., in 100 seconds. Its action on raw starchy matters is very slow and imperfect. Saliva, by virtue of its alkaline action, possesses to a limited extent the power of emulsionizing fats (Longet). When acidulated and kept in contact with boiled white of egg during 48 hours, at a temperature of 38° Cent., it transforms part of the albumen into peptone. The quantity of saliva secreted in 24 hours by an adult was probably from 1 to 2 lbs. He found that iodide of potassium was as quickly excreted by the kidneys as by the salivary glands.

2d; Stomachal Digestion.—A gastric fistula was made in a dog. During fasting, the fluid in the dog's stomach was slightly alkaline; but when the animal was prevented from swallowing his saliva, it was invariably neutral.

An analysis of 100 parts of gastric juice gave:

Water			99·288
Solids			0·712
Organic matter, chiefly Pepsin		0·247	
Chloride of Sodium	Inorganic matter	0·465	
„ „ Potassium			
Phosphate of Lime			
„ „ Magnesia			
Iron			
			100·000

Gastric juice does not change starch into sugar, but it does not prevent the action of the saliva in the stomach. It transforms cane into grape sugar. It has no effect on sugar of milk or grape sugar. Fats are liquefied in the stomach partly by the cell walls being dissolved, and partly by the temperature of the organ. Neutral fats are changed into fatty acids (Marcet). Albumen is changed into peptone, which has the property of preventing the sulphate of copper and potash test from indicating the presence of sugar, while at the same time it gives to the solution a fine violet color (Longet); gelatine acts in the same way (Bernard); and the author has found that several other substances have this property of masking the presence of sugar—among these, casein, meta-albumen, and, to a certain extent, protein substances undergoing putrefaction. The daily secretion of gastric juice the author estimates as a 1-15th of the weight of the whole body. In reply to the question, Why is the stomach itself not digested? Harley does not agree with Bernard in believing that its preservation from the action of the gastric juice is due to the layer of epithelial cells, but he ascribes it to the layer of mucous which lines its cavity.

3d. Duodenal Digestion.—Bernard states that bile precipitates digested azotized matters from the chyme, and even the pepsin. Corvisart says that the bile, instead of precipitating the organic substances contained in the chyme, is itself precipitated by the latter. Harley adopts Corvisart's opinion. for the following reasons:

1. Alkaline human bile, when added to pure chyme, gives a copious precipitate.
2. The same bile, added to chyme, the acid of which has been previously neutralized, gives a turbidness, but no precipitate.
3. Alkaline bile, added to a neutral solution of pepsin, gives a turbidness, but no precipitate.
4. Alkaline bile, added to distilled water, gives a turbidness, but no precipitate.
5. Alkaline bile, added to water acidulated with hydrochloric acid, gives a copious precipitate.

The bile does not change starch into sugar. The results of experiments on the action of the bile on fats were contradictory, but the author concludes that the bile possesses, to a limited extent, the property of emulsionizing fats. He confirms the observations of Marcet, that it is only the fatty acids which form an emulsion with bile. Bile has not the power of digesting albumen.

Pancreatic juice from a dog rapidly changes starch into sugar (Valentin); this action is not prevented by the gastric juice. It emulsionizes fat (Eberle). It further possesses the property of rendering fluid chyme loaded with peptone (Eberle, 1836), and of digesting albuminous substances (Pappenheim and Purkinje, 1836; Corvisart, 1857).

The pancreatic juice, therefore, appears to be the most remarkable of all the digestive fluids, for it seems to unite in itself the functions of the salivary, gastric, and biliary secretions.—*Edinburgh Medical Journal, from British and Foreign Med. Chir. Review.*

Brucke has lately published some very interesting experiments on pepsin. He has been able to obtain it pure and very concentrated by an entirely new process of preparation, and when in this state its properties have been found to be very different from those generally ascribed to it. Probably the most interesting discovery that Brucke has made, is the fact that pepsin or the active principle of the digestive fluid is not destroyed during the process of digestion, so that a small quantity can be made to digest an almost unlimited quantity of fibrin, when proper precautions are taken. Finding that it was not destroyed during the digestive process, he was led to look for it in the excretions, and found it in the urine, from which he was enabled to prepare a fluid capable of digesting fibrin and white of egg. He also found it in the muscular tissue, although in small quantities. It it possible, however, that its existence in raw flesh, and the fact that it is completely destroyed by heat, may explain the ready digestibility of raw meat when given to infants.—*Chemische Central blatt, Dec.* 1861.—ED.

On the Treatment of Fracture of the Lower Extremity of the Radius.

BY ALEXANDER GORDON, M. D.

OF all the bones of the body, none is so frequently fractured as the radius. The fracture usually occurs at, about an inch above, its carpal end. I believe fractures of this bone, in this situation, are almost as frequent as all the other fractures conjoined. This fact renders any attempt to improve the treatment at present pursued deserving of consideration, especially because that accident frequently entails much suffering, often great impairment of the functions and structure of the wrist-joint, and often happens in persons whose subsistence depends mainly upon manual labor.

I have no hesitation whatever in stating that the methods of treatment which have hitherto been pursued in this common accident have failed. I do not mean to assert that they have not been beneficial. I acknowledge that the functions of the limb, in many cases, have been almost perfectly restored, and the amount of subsequent deformity very much diminished. I do, however, affirm that they do not afford such a solid support to the radius as is requisite for the restoration of its natural form; nor, if the form be restored by coaptation, will they maintain it until firm osseous union has taken place. The main cause of failure has been the imperfect adaptation of splints to the shape of the forearm. When the forearm is supine, the external border of the carpal end of the radius looks directly outwards, and is on the outer border of the forearm; above the elbow-joint, the external border of the forearm is formed by the supinator and extensor muscles, the head of the radius occupying nearly the center of the posterior surface. When the hand is prone, the carpal border of the radius, which in supination looked outwards, is now directed inwards, the position of the head of the radius being unchanged. If we now look at the radius, and trace its course, we shall find it as we ascend to pass from the inner to the posterior aspect of the forearm. If we now place a narrow pad along the front of the forearm, and over this a splint, it will be quite evident that pressure thus made is chiefly sustained by the muscles in the center of the forearm, and that the radius is very imperfectly supported, and especially at the part where it is most frequently broken. These reflections led me to adopt the mode of treatment which I shall presently describe.

The fracture is usually transverse, and both fragments—that is, the upper end of the lower fragment, and the lower end of the upper fragment—are displaced forwards and inwards. Of this double displacement, I regard the inward as of secondary importance, because, if we counteract the forward displacement, the fragments, in resuming their natural position, will incline outwards; just in the same way as a straight or slightly curved piece of wood, when broken, with the fragments still in apposition, will resume its straight or slightly curved form when the deflection in counteracted. This fact has probably been too much overlooked hitherto in the treatment of this very common fracture; and hence too much importance has been attached to the necessity for counteracting the action of the pronator quadratus and other muscles by maintaining the hand in a state of adduction. Adduct the hand as we may, the deformity and its consequences will persist, if the forward displacement be not thoroughly rectified.

The practice hitherto adopted may be said briefly to have consisted of the application of a pad resting against the palmar surface of the forearm, extending as far as, or below, the lower end of the upper fragment, and supported by a splint; of graduated compresses upon the posterior surface of the carpal fragment and carpus, and over these of a straight or pistol-shaped splint, and of adduction of the hand. Dupuytren applied the ordinary apparatus for fractures of the forearm, and relied chiefly upon an ulnar splint, to which the hand was held adducted. evidently overlooking the main displacement forwards.

Nelaton applies a compress, doubled at its lower end, so as to form a thick border, which he places immediately above the lower end of the upper fragment, and over that a splint which extends beyond it, leaving between this splint and the lower end of the forearm a space which corresponds to the lower fragment; in fact, on the palmar surface of the lower fragment there is no pressure exerted. Posteriorly, however, he places across the posterior surface of the carpus and the carpal fragment of the radius two or three graduated compress, of a wedge shape, with the base directed outwards, and over these a splint. Thus, according to Nelaton's plan, the lower end of the upper fragment is pushed backwards by the palmar compress and splint, whilst the carpus and carpal end of the lower fragment are pushed forwards, and inclined towards pronation.

A little reflection will show us, especially when we examine attentively the conformation of the forearm, when placed midway between pronation and supination, that any pad applied in front, and covered with a splint, will exercise its chief pressure along the center of the foream, and will not be sufficiently oblique to restore or maintain fully and effectually the concavity of the radius. The splint which I use has attached to its radial border a piece of wood, so bevelled that it fills up and fits accurately the natural concavity of the radius. The fracture renders the palmar surface of the radius convex, instead of being concave, its normal form. The surface of the attached piece of the splint is also convex, and covered with tow, a piece of spongio piline (the best material), or some other soft substance. The convexities of the splint and radius are mutully brought into apposition; about half an inch, or perhaps a little more, of the lower end of the radius, is unsupported, because of the alteration in its form. A thick pad, similar to that used by Nelaton, is now applied over the posterior surface of the carpal fragment of the radius and carpus, and over this a splint, extending from the upper and back parts of forearm to the metacarpus.

The action is very simple. The radius, at the seat of fracture, is convex, instead of being concave; the convexity of the splint is pressed against the convexity of the radius. The lower ends of the carpal fragment, the carpus and metacarpus being inclined unnaturally backwards, are pressed towards the palmar surface, acting as a lever, whose fulcrum is the convexity of the radius. The displacement forwards of the radius gradually yields; and if the pressure by the bandages be cautiously and continuously maintained, the convexity of the splint slowly and steadily forces the displacad fragments backwards, until at last the convexity of the splint rests in the concavity of the radius; and just as the inclination forwards of the fragments disappears, so does the displacements inwards; and so perfectly does the radius regain its normal form, that, in most cases, it would be difficult to detect the seat of fracture. In one case, I tried in how short a time the splint would reduce the deformity under pressure from straps and buckles. The patient was a boy, 13 years of age, who "had sprained his wrist" nearly three weeks previously. The inclination forwards was even greater than usual. The splint was applied at 10 o'clock A.M.; at 8 o'clock P M. of the same day, the straps were tightened by one of the resident pupils of the General Hospital: the patient in the meantime, made no complaint of pain; and on the following morning the radius had regained its shape perfectly. Yet I do not recommend that the correction of the deformity should be left to the splint and pressure alone. I merely mention it as a fact repeatedly observed, that the splint, if properly applied, and aided by a tight bandage, will, as it were, mould the radius upon it, and restore its natural form.

A very important question arises at this stage of the inquiry. Can the methods of treatment recommended by Dupuytren, Nelaton, Dr. R. W. Smith, and others, restore the natural form of the radius, or can they maintain it when it has been restored by manipulation, until firm osseous union has taken place? I believe they cannot, and for this simple reason they do not afford a sufficiently solid mechanical support effectually to counteract the action of the supinator radii longus, the adductors of the thumb, and the other muscles, when there is a tendency to displacement; and if they do not, are those disastrous consequences which too frequently follow the accident to be referred to the injury inflicted at the time of its occurrence; or are they the results of inflammatory action subsequently set up in consequence of alteration in the natural relation of the parts?

When the radius is restored to its natural form, and thus maintained, the "stimulus of imperfection" ceases, and, as in other fractures, very little serious inflammatory action follows. I have so often witnessed relief of the pain, which was very severe before the application of the splint, that I regard pain as indicative of displacement rather than of fracture. In some persons, especially those in whom the general health is not good at the time of the accident, the subsequent inflammatory action may be great, and the result of the primary injury. When once it has commenced, it may continue until it ends by impairing the functions of the limb permanently. Still my firm conviction at present is, that in most cases the inflammation is not of primary, but of secondary occurrence, and that it is evidently due to the non-restoration of the natural form of the radius. If we examine a case carefully by dissection, in which there has been a slight inclination forwards of the concavity of the radius, we shall see changes sufficient to account for it. Do not the same train of symptoms arise in cases of fracture of the fibula, in which, after the consolidation of the fracture, the weight of the body is thrown more inward upon the tarsus than it was before the patient met with the accident?

I have before me six specimens of the radial fracture, and in none of them has the natural concavity of the radius being restored. Dr. Smith, in his admirable treatise on Dislocations and Fractures in the vicinity of Joints, says: "In not one of the twenty specimens which I have lately examined, has this object" (the restoration of the natural concavity of the radius) "been accomplished: in some it has been so far effected that the carpal surface looks directly downwards, but in none of them does the posterior surface exceed the anterior in length; in those which present the nearest approach to the natural form of the bone, these surfaces are of equal length."

Now, what are those alterations which result from the changed position which the carpal surface of the radius occupies?

The inclination forwards of the upper end of the carpal fragment causes its carpal surface to look downwards, and slightly backwards, which is also further increased by the greater absorption of its posterior half, evidently showing that movenents of the carpus upon the carpal surface of the radius are directed more towards its posterior border than natural; or, in other words, the centre of motion between the carpus and carpal surface of the radius is displaced backwards. Indeed, whilst the length of the palmar surface of the lower or carpal fragment seems to be little, if at all, altered, the posterior surface is shortened one or two lines by the progressive absorption of the posterior half of the carpal surface. One of the effects, then. of this accident is to wear away, if I may use the expression, the posterior surface, in some instances, by two lines at least; and leading to increased capability of extension, and diminished capability of flexion of the hand upon the forearm; also alteration in the line of action of the extensor muscles behind, of the flexors in front, and of all the other muscles which pass from the forearm to be inserted in the hand.

I have seen absorption of the vertical thickness of the scaphoid and semilunar bones. In one of the specimens of this accident which I have before me, the verticle thickness of the scaphoid and semilunar bones is unquestionably diminished; but as there is evidence of the presence of that morbid action to which the name of chronic rheumatic arthritis is given, the alteration may be as much the effects of this morbid process as of the accident. From the inclination inwards of the upper end of the lower fragment, the styloid process of the radius ascends, drawing with it the hand, and giving to the extremity the appearance as if the hand had suffered a slight partial dislocation outwards, causing projection of the lower end of the ulna, elongation of the internal lateral ligaments, and increased mobility of the carpal end of the ulna.

We may now perceive very plainly, from the changes in the natural relations of the parts, and consequently in their actions, that the ligaments and sheaths of the tendons sustain a sort of chronic sprain, which, exciting inflammation, ultimately ends in greater or less impairment of the functions of the forearm and hand; that these occurrences are almost entirely referable to the displacement of the lower fragment of the radius; and that every mode of treatment which does not effectually restore the concavity of the radius, must necessarily be followed by those distressing consequences which most have regarded as unavoidable and irremediable. That these distressing sequelæ may be almost entirely prevented I have not the slightest doubt; but, if so, this can only be accomplished by a splint accurately fitting the concavity of the radius, and effectually maintaining it. The treatment of the fracture of the lower end if the radius will then be as easy as that of any other fracture, and unattended with any serious consequences as regards the future usefulness of the limb. I have often been told by practitioners that they have efficiently treated fractures of the lower end of the radius by compresses in front and behind, covered by straight or pistol-shaped splints. To this I reply: That your patient has had a fracture of the lower end of the radius, I admit; that you have set the fracture, restoring the natural form of the bone, I also acknowledge; that compresses and splints have been applied is another fact; and also that the patient has regained the perfect use of the limb. All these facts I admit. But I cannot admit, from what I have seen of this accident, that compresses, supported by a straight or pistol-shaped splints, are adequate to restore the concavity of the radius and maintain its natural form, if their be a tendency to displacement, because they are not adequate to the correction of the displacements; and, being mechanically imperfect, deformity of the radius and its disastrous consequences must result.

Every practitioner who has carefully observed cases of this accident, and treated them according to the most approved methods hitherto adopted, must, if possessed of ordinary candor, admit the existence of the serious consequences which frequently attend it, and which have been faithfully described by Dr R. W. Smith:—"The sequelæ of this injury is a source of great inconvenience to the patient, and of annoyance to the surgeon, who is often unjustly blamed for its occurrence; the practitioner will therefore act with prudence in warning his patient at the commencement of the attendance that stiffness of the wrist-joint, and an incapability of flexing the fingers, during a period of several months, are by no means unfrequent results of a fracture of the lower end of the radius" (p. 139). It would be presuming too much to affirm at present, that these untoward circumstances can be entirely prevented. Still, I am bound to state, from considerable experience that, under proper treatment, they are very rare; so rare, indeed that their occurrence neither need be anticipated nor dreaded.

In the formation of the splint, there are several points which should be carefully observed. The breadth of its lower or carpal end should not exceed that of the forearm at the wrist; it should not project so much internally as to be on a level with the inner border of the forearm. On the radial side, it should project beyond the radius; and the bevelled piece, for filling up the concavity of the radius, should be attached half an inch, at least, internal to that border. By this arrangement, the ulnar side of the forearm sustains the pressure of the bandage or straps. The reverse is the case on the radial side. The radial border of the splint alone is pressed upon; this pressure forces the bevelled portion inward upon the concavity of the radius and pushes it backwards, whilst at the same time, the outer border of the radius is protected from pressure. If the ulnar margin of the splint projected beyond the ulnar border of the forearm, it would be pushed outwards when we applied the bandage; and the bevelled portion would be removed from the concavity of the radius, and it would be left unsupported. The upper end of the splint should be well hollowed to adapt itself accurately to the convexity of the upper part of the palmar surface of the forearm.

In this, as in other fractures, I prefer broad straps, with buckles, to the ordinary calico or linen bandage, as they are more easily removed, and less liable to loosen. Indeed, for some time past, in the treatment of fractures generally, I have entirely discarded the ordinary circular bandages, using in their stead broad straps, with buckles attached; and whether we regard the comfort of the patient, or the satisfaction which the straps afford to the surgeon, the advantages are so obvious, that calico or linen bandages cannot bear comparison with them.

Another point, to which my attention has been particularly directed for some time, has especial reference to the diagnosis of injuries of the wrist and ankle joints, and may be of some importance to the junior practitioner. Fractures of the lower end of the radius are usually caused by falling upon the upper part of the palmar surface of the hand, when the patient instinctively extends his arms whilst falling, to prevent his face coming in contact with the ground. If, after falling in this manner, a patient complains of having sprained his wrist severely, and is immediately afterwards unable to move it, unless with great pain, it is the radius and not the wrist-joint that has suffered. I cannot bring to my recollection a single instance of severe sprain caused in this manner. I do not mean to deny the possibility or probability of the wrist being sprained in this way; but I wish to impress upon the junior practitioner the importance of a maxim, which I have laid down for my guidance, and it is this:—When a patient comes to me and says, "I have sprained my wrist, and am unable to use my hand," I assume the injury sustained to be a fracture of the radius and not a sprain, until I have satisfied myself to the contrary. When a patient requires my assistance for a severe sprain of the ankle-joint, caused by the foot being twisted either inwards or outwards, I assume that he has fractured the fibula, and that the whole injury is a fracture and not a sprain, until, by the most careful examination, I have satisfied myself to the contrary. Sprain of the wrist, from falls upon the palm of the hand, is a very rare accident. I do not remember having met with a single instance of it. Sprains of the ankle-joint, from twisting of the foot, I also regard as very rare accidents; whereas fractures of the radius and fibula are very common.

We have inserted this article at length, instead of giving a mere abstract of it, as we think the subject one of very great importance, having seen more mistreated fractures of the lower end of the radius than of all other fractures put together.—Ed.

BURNS.—In reference to the subject of burns, Mr. F. C. Skey, in his Notes of Cases of Surgery, says: I have always been an advocate for the stimulating principle first suggested by Dr. Kentish. That principle, to my observation apparently so sound, has been repudiated of late years by many eminent surgeons. The thoroughly negative action of Carron oil and lime-water has been substituted for it, from which, I confess, I have never seen a corresponding benefit obtained. It is notorious that the intense pain caused by a drop of hot sealing-wax, or other similar agent, on the skin is much mitigated by the temporary application of great heat. The pain subsides in the course of a few moments by holding the affected part to the fire. The explanation is not perhaps very obvious, but the fact remains.

In July last five men were admitted into St. Bartholemew's Hospital, with severe burns on the face, head, chest, and arms. One died immediately after his arrival. My house-surgeon, Mr. Richard Smith, was at the time ill, and the immediate charge of these cases devolved on a colleague, who applied the oil and lime-water to the arms and hands of each of the surviving men. At that moment Mr. Smith arrived, and completed the dressing by an application of a solution of nitrate of silver (ten or twelve grains to an ounce of water) to the face, neck, &c. I did not see these men till the following morning, when all four complained of severe burning pain in the arms and hands, but stated that they were free from pain in the other affected parts. The stimulating solution above mentioned was applied to the upper extremities, and the relief at the expiration of about a quarter of an hour was complete. In two of the cases some pain returned on the third day, and relief was obtained by the same means. My directions are simply these: In the case of infants or young children, wash the affected surface, if not very extensive, with a solution of nitrate of silver, in strength six or eight grains to the ounce, and immediately cover up the part with a thick mass of cotton-wool; in the case of an adult, from twelve to fifteen grains, unless the surface requiring the application be very large. Should pain return, the solution may be advantageously resorted to at any early stage of the treatment.—*London Lancet.*

SUPPLY OF ATMOSPHERIC AIR TO PUBLIC BUILDINGS.—The Commission appointed to report on the question of warming and ventilating the Palais de Justice, Paris, comes to the conclusion that the following quantities of atmospheric air should be supplied per hour for each individual placed in the respective localities: Hospitals, day and night, 80 cubic metres; during the period of dressing the surgical patients, 120 metres; and during an epidemic, 150 metres. Laboratories, 60 metres. Barracks, during the day, 30 metres, during the night, 60; and during epidemics, 120 metres. Prisons, 60 metres. Ampitheatres, theatres, and assembly-rooms, 60 metres. Schools, 30 metres. —*Medical Times and Gazette, from Presse Belge.*

ORIGINAL PAPERS.

Report on Gonorrhœa and its Treatment in the Volunteer and Regular Army of the U. S. on the Pacific Coast.

BY JOHN B. TRASK, M. D.,
Acting Assistant Surgeon, U. S. A.

To Surgeon McCormick, U. S. A., Medical Director of Department of the Pacific:

SIR: Since I was relieved from the service in November, I have not before this had an opportunity of reporting to you, as I should wish to have done, the health of the Volunteer forces and Regulars on this coast relating to this malady, and also to its treatment. The statistics here presented will serve to exhibit to some extent the condition in which many of the Volunteer corps entered the service, though it does not probably represent the absolute condition of the men as regards gonorrhœa, for I have the best of reasons for believing that a much larger number had the disease on entering the service than is manifested by the sick report of the regiment.

My principal object in this instance is to detail the results of treatment on a fair number of cases, with a brief analysis of the results obtained as to the terminations of the cases under the remedies used.

From the variety of opinions prevailing at the present day as to which is the most efficient method of treating this malady, whether by local measures alone, or the use of remedies by the stomach, or both measures combined, I have thought it not uninteresting to present, in as condensed form as possible, the results of those methods of practice pursued by me at the different military posts at which I served during 1861.

Not only is the diversity of opinion as to remedial measures most remarkable, but it seems equally great as to the regimen to be employed on these occasions; strict attention to my cases in hospital and in quarters while under treatment has not seemed to modify the general result of the treatment, so much as might *a priori* have been anticipated, if the books were received as gospel in these matters.

I am, therefore, much disposed to regard these notions of extreme stringency as to regimen as one of the dreamy fancies of by-gone days, inapplicable to the "*present advanced state of medical science*" This conclusion has not been of recent origin with me, but dates back to sixteen years, when death was the result of exhibiting a drop of cold water to a fever patient. I have since that period had no sufficient reason to change my views in this particular; and have followed out those ideas as to free diet, and the average results of the treatment will I think be ample to sustain the proposition that a strict regimen has but little to do with the cure of gonorrhœa.

Like all persons who attempt to essay on venereal maladies, it will, of course, be expected that some creed is absolute, in order to legitimatize the treatment. I will, therefore, adopt that of Diday—more as a matter of convenience, and because I have no other handy just now; and, further, because I have not time to hunt one more novel, abstruse, of wider range, or nonsensical.

I must, of course, agree with him, therefore—

"I believe in gonorhœa as a 'specific inflammation' which may be communicable or not communicable from one male to another male, or to a female, according to conditions present and circumstances, and *vice versa*; or, it may be communicable in this state (that is, as an inflammation specific in its nature) to other parts of the same person, other than the mucous membranes most susceptible to its contagion, but that its inoculation thus does not produce chancre on a second person, unless chancre or syphilis is present in the party from whom the virus is taken."

The insertion of the virus of eight cases of gonorrhœa on the inner part of the thighs of the same persons produced redness, swelling and pus, the points healing in eight to twelve days; the other case, who had *apparently* recovered from syphilis, the inoculation produced chancre. I have now a word to say, simply on this matter of specific contagion, and will leave the reader to form his own conclusion; in all the cases thus inoculated, the inflammation resulting was alone epithelial proliferation, and healed leaving the skin intact.

Regarding the malady as an inflammatory process, but of a peculiar nature, the treatment adopted was to its reduction in the shortest possible period of time. Of course in such cases, the physiological indications are plain, if the doctrine be a correct one of its nature, and then it will direct our measures to the reduction of the hyperemia through the general circulation, avoiding any lowering of the system or the pulse, or the destruction of the virus by local applications decidedly alterative in their nature directly to the parts applied.

There is one fact to which I would direct your attention in this matter, and that is, I do not wish to be understood as saying that a gonorrhœa should not be regarded as a phlegmon, a simple inflammation, that result when it does occur being the consequence of an active and an acting cause, preceding the inflammatory process. If inflammation alone were the case, our pathology should demonstate the fact, but it has failed to do so, for the malady leaves no trace of inflammatory product behind, like other inflammations of a simple nature aud phlegmonous character.

From these few remarks in relation to the nature of gonorrhœa, it will be readily inferred that I regard the malady as incident to the epithelial tissue; that it is a proliferation of that layer, active in its progress, and as a consequence excluding inflammation as other than a sequence. If the latter proposition required discussion, it can easily be shown that the sequence is correct, not logically nor theoretically alone, but that it is absolute.

Leaving this very interesting and extremely well settled and lucid part of the subject, I will now present a detail of the cases which came under my treatment during the latter six months of 1861.

The whole number of cases of this malady which came on sick report (inclusive of regulars and volunteers) was 125; of this number, 36 were troops in the regular army, and 86 belonging to the volunteer corps of the 1st Cal. Inft. Vol. Of the latter 38 came on sick report between the 30th Aug., and 6th Sept., and were passed into the service with the malady upon them, before I took the medical charge of their camp.

Of the 39 regulars at Presidio Barracks who presented themselves with gonorrhœa for treatment, between June 8th and August 3d, 12 were treated with Bromide of Iodine as an enema alone; with per Chlor. Ferri as an enema 6 were treated; with Pulvis Terebinthine insp., as an internal remedy alone, 18 were treated.

Of those under the use of bromide of iodine, 5 were selected from the 12, and placed on a moderately low regimen, and of those under use of the terebinthine, 6 were selected for the same purpose. A part of these were treated in hospital, and the rest in quarters. The remaining 26 were treated in quarters with no medical restrictions as to diet, and evidently but few followed as to beverages, although they were often inculcated, and promises of conformity were most excellent.

The cases under per chlor. ferri as an enema, and numbering but 6, gave an average of 9·3 days; the shortest period of any case was 3 days, and the longest period of any case 14 days. The patient of the shortest period was inoculated with his own virus on the day he came on sick report, and produced a sore; three days after he returned to duty he applied for treatment of the sore; it healed with a cerate dressing in about a week.

The cases which were treated with brom. iodine as an enema, and were not restricted as to diet, &c., in quarters, gave an average of 11·5 days. The shortest period of any case was seven days, and the longest period 17 days; this one, and one of 15 days, had soft chancre at the time of treatment, and of course this somewhat modified the result.

Of the four cases under this same treatment, but upon a restricted diet, and uncomplicated with chancre, the average period of treatment was 13·3 days; not a strong argument for low diet in this malady.

Under the use of the pulvis terebinthine insp., the 12 cases treated in quarters, without following restrictions, gave an average period of 8·17 days; the shortest period being 4 days, the longest 18 days. The latter and two others, one of 14 and the other of 17 days, were complicated with syphilis.

The six cases under the same treatment, but with a low diet, gave an average period of 10·2 days.

If now we deduct the three syphilitic cases from the 18, we shall have 7·23 days as the average period of cure with this remedy; the syphilitic cases present an average period of 16·1 days; the same result, very nearly 16 days, is also found to be the case with the two complications under the bromide iodine.

The treatment of this disease at Camp Downey, it will be found, furnishes us a somewhat different result, under the use of the same remedial measures. These men, were raw recruits from all parts of the State, and considering the change of circumstances in which they were placed, it is rather the more remarkable that we find the discrepancy in favor of the Volunteers.

At this Camp, between the 30th August and 23d September, there were treated 65 cases of gonorrhœa. Of this number, 51 were placed exclusively on the terebinthinate powder, 8 cases on bromide iodine, and 6 cases on the ferri per chlor. All the cases, except those from the cavalry camp (Camp Merchant,) were treated in quarters.

The following are the results obtained at this post. Of the fifty-one cases treated with the terebinthine insp., the average duration of treatment was 6·12 days. The shortest period of any case was 4 days, and the longest period 17 days. Of the total number, 12 cases were cured and returned to duty in 4 days, being 41·18 per cent. Of the total number, 13 others were cured and returned to duty in the period of 6 days, being 30·22 per cent. This gives an average of cures of 71·40 per cent. within six days. Of the whole number, 42 were cured within 14 days.

The remaining nine cases were complicated with syphilis; of these none got well under 15 days, and the longest case was 18 days. If we remove these nine cases from the total of 51 treated as above, their period of treatment and cure of the gonorrhœa required 16-3 days, and reduces the period of treatment in the 42 cases uncomplicated to 6·8 days, or seven days at the utmost; this it will be seen corresponds closely to the 25 most rapid recoveries, as given above.

With bromide iodine, 8 cases were treated. The average duration of treatment was 9·5 days.

With ferri per chlor. there were six cases treated, with an average of 8 days. With the last two remedies there was no syphilitic complication.

If now we compare the results of the same treatment of the same disease at the two posts, we shall be struck with the difference in time it appears to require to remove the same malady at the two stations, and in this particular there seems to be a hygienic complication which I scarcely feel myself able to explain satisfactorily.

There seems, however, two points, perhaps three, that might somewhat modify the difficulty thus presented. The figures will show at a glance wherein this discrepancy lies.

At the Presidio, among the Regulars, and in good barracks, the treatment

With ferri per chlor. averaged - - - - -	9 ·3 days.
With bromide iodine - - . - -	11 ·5 „
With pulvis terebinthine insp. - - - -	8·17 „

At Camp Downey, among the Volunteers in tents, the treatment

With ferri per chlor. averaged	8·0 days.
With bromide iodine	9·5 „
With pul. terebinth. insp.	6·8 „

The points to which I allude as probably modifying the results are the following:

First, the Presidio has a much more variable and far colder and unpleasant situation than Camp Downey, which is 17 miles to the east of the former. The temperature of the latter is higher, and the evening winds are thus much softened.

Second. The troops at Camp Downey were evidently not as indulgent of their appetites for drink, as a small amount of drunkenness was known at this post.

Third. The tendency to diarrhœa at Camp Downey, from the use of saline water with which the camp was supplied may have had some effect in the modification of the results obtained.

These seem to me the most probable causes affecting the result as presented.

There is one point to which I would direct your attention; it is this; the very close coincidence of the period required to cure a gonorrhœa, when complicated with syphilis, and under the same treatment at both posts. This coincidence is interesting, from the fact that the remedy used seems to have little influence over the time required for its removal.

Hoping the above may meet your approval, I submit it as a part only of the medical reports from these posts.

Very respectfully, yours &c.,
JOHN B. TRASK,
Acting Assistant-Surgeon, U. S. A.

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SUFFERINGS OF THE WOUNDED AT THE CAPTURE OF FORT DONELSON.—The physical suffering of all who were engaged on the attack on and capture of Fort Donelson probably exceeded that of any previous battle on this continent. The temperature was lower than on the occasion of the famous winter fight at Eylau, and the misery of the men, from wet and frozen clothing, and insufficient food, was perhaps as great. On Thursday, the first day of the fight, the temperature was but ten degrees Fahrenheit, and snow fell during the day and the succeeding night. Feet and hands were, in many instances frozen. It is believed that many of the wounded died where they fell from freezing, as the armies were so near together that neither belligerent could venture out to relieve the wounded or remove the dead. It is said that some of the wounded laid on the field from Friday until late on Sunday, and, when rescued, were stiff with cold and covered with snow.—*Medical and Surgical Reporter.*

MEDICAL COUNCIL.—Professor Sharpley, of University College, London, has been nominated by the Crown to the seat at the Medical Council, vacant by the death of Dr. Baly.

Case of Leucocythemia.

BY JAMES BLAKE, M. D.

MRS. B., æt. 23, wife of a physician. I was requested by her husband to see her on March 31st, he informing me that the patient had been sick about three weeks.

The following is the history of the case as I received it from him. Mrs. B. had generally enjoyed good health, until the last few weeks; in fact, she was a person with more than the average share of health, being of a very active disposition, and taking a great deal of exercise, with a good color and a wholesome appetite—although for the last few months the appetite had not been quite so good, nor could she take as much exercise without experiencing fatigue. There has also been some slight irritability of the bladder, but not enough to cause any serious annoyance; in fact, up to the time of her last illness, her health might have been pronounced good. About five weeks previous to my seeing her, the appetite began to fail, and at the same time she complained of weakness and want of energy. At the next menstrual period, the discharge was very pale and scanty, and only lasted two days. She now became rapidly very weak, extremely pale, and there was a constant tendency to syncope; no desire for food. She complained a great deal of headache, principally frontal, and pain in the lumbar region, which sometimes was very acute, and extending down the legs. Her sleep was very much disturbed by unpleasant dreams. There was considerable secretion of pale urine. About three weeks before her death, she had hemiplegia of the left side, commencing in the fingers of the left hand, and extending over the whole of that side of the body, involving even the facial muscles of the same side. It lasted only about five minutes, and then entirely disappeared. A few days after this, she had what is described as a congestive chill, in which she remained cold and almost comatose for an hour; when this went off there was a very copious secretion of pale urine. On another occasion, whilst lying in bed, she was unable to see, but this only lasted a few minutes. During the last three weeks, she has been kept alive principally by stimulants, having taken large quantities of brandy and wine.

When I saw her, I found the skin remarkably pale; no color in the lips, conjunctiva of lids white; eye clear and bright; temperature of skin natural, but with a tendency to become cold; respiration rather slow—16 in a minute; pulse 110, soft, but with some volume; tongue clean but pale; bowels regular, no appetite, but takes small portions of animal jelly and raw egg, with wine. Great thirst, caused by a feeling of heat in the stomach, which created a constant desire for ice. On auscultating over the heart, a venous murmur was heard towards the base, and this was also audible over the jugulars. The urine was passed in moderate quantities sp. gr. 1009; it contained some albumen, and under the microscope showed the presence of granular tube casts, such as occur in scarlatinal dropsy. I was informed that sugar had been discovered in the urine, but on examining it with subnitrate of bismuth and carbonate of soda, I failed to detect any; its low sp. gr. also renders it probable that if found, its presence was accidental. Not having been able to detect, either from the history of the case, or after a careful examination, any amount of organic disease sufficient to account for the symptoms, I arrived at the conclusion that the case was one of anœmia, complicated with hysteria, or else it was one of that rare form of disease leucocythemia, or white blood disease, in which the composition of the blood is profoundly changed.

A microscopical examination of a drop of blood drawn from the finger showed that it was the latter disease, and led to a most unfavorable prognosis, as I am not aware that any case of the disease has ever been recorded as recovering. The blood under the microscope showed fully one-half of the corpuscles to be colorless—a larger proportion of colorless corpuscles than I have ever before met with, or seen recorded as found in blood taken from the general circulation.

In the course of a few days after I had seen the case, it terminated fatally, the patient gradually sinking, and going off, apparently, in a state of syncope. A post-mortem examination of the abdominal and thoracica viscera, discovered no pathological lesion that at all accounted for the altered condition of the blood. The lungs were perfectly healthy, but anæmic; the heart was pale, with about the average quantity of fat on its surface; the tricuspid and mitral valves were not so transparent as natural, and somewhat thickened, a condition, however, which I believe might be explained by the altered state of the blood. The liver, which was of a pale brownish yellow, showed no traces of disease. The gall-bladder was full of bile. The spleen pancreas, suprarenal capsules, mesenteric glands, all seemed normal. The kidneys, like the other organs, were anæmic; the distinction between the medullary and cortical substance was less marked than usual; but this might be explained by the anæmic state of the organ. The capsules adhered to the kidneys less firmly than usual. In size and consistence they were natural, some of the papillæ, however, appearing almost white. In the right side of the heart was found a firm fibrinous clot, which occupied the principal portion of the cavity; it, with a portion of the splenic vein was preserved for subsequent examination.

A portion of the liquor sanguinis expressed from the clot showed a very great preponderance of colorless corpuscles, not more than one-third being ordinary colored globules. The blood from the splenic vein was not coagulated; the corpuscles were, with very few exceptions colorless, I having counted but two colored corpuscles in forty-eight, the others being evidently white colorless corpuscles, the nucleoli of which could be brought out by acetic acid, the granular surface of the corpuscles being visible with higher powers and oblique illumination.*

An examination of thin sections of the kidneys showed that the convoluted vessels were congested, or full of colorless corpuscles, and the vasa recti obstructed by granular exudation. The whiter portions showed no signs of organic degeneration. Tested with iodine and sulphuric acid, the kidnies presented the reactions of amyloid matter.

In the *Gazette Hebdomadaire* for Jan. 10, 1862, we find reported a case resembling somewhat the one above related, as regards the rapidity of the attack. The history of the case is as follows:

> "The patient aged 42, of good general health and constitution, was admitted into the hospital for pains of the lower extremities, supposed to be sciatica. A few days after his admission, attention was called to his extreme paleness, and a slight œdema of the legs. Nothing to explain this; urine normal; heart right; no pain in back; respiratory organs free from disease; vomiting; bowels natural. The patient died about three weeks after admission, death gradually taking place from syncope. After death, there was found some fatty degeneration of the heart and liver. The spleen was not enlarged, but softened. Kidneys pale; engorgement of the posterior lobe of one lung; other viscera healthy. The blood both during life and after death was found to contain a large number of colorless corpuscles, in some blood from the right side of the heart, the proportion of white globules was from a fourth to a fifth of the whole number of globules.
>
> The author observes: "We have here a case in which the disease had gone through all its stages in the course of about thirty days; in fact, there were no well marked symptoms for more than fifteen days, as the patient only complained of pain in the lower extremities when first admitted into the hospital. This man, then, has died of an acute disease, the progress of which has been very rapid. But of what disease shall we say he died?"

After a long review of the symptoms, the author concludes that he died of alcoholism, a term that is becoming quite a convenient scape-goat for hiding our ignorance as to the etiology of certain forms of general disease.

We consider the case one very analogous to that above related, and that it consisted in an altered state of the blood, originating in that fluid, or brought about by changes in the organs, which we are unable to discover, or at least to connect with the deeply altered character of the blood.

In the case reported in the *Gazette*, there was found more organic disease than in the case above related, but still not sufficient to explain the deep alteration which had taken place in the blood, and which we must regard, at least in our case, as primary.

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* I would remark that these observations were made with a ¼ in. objective of Powell and Leland's microscope. I was also assisted by Dr. Trask, with a ⅛ in. of Smith's.

DR. SANDERS has been appointed Physician to the Edinburgh Royal Infirmary, in the room of Dr. Keller, who retires by rotation.

REVIEWS.

ANATOMY, DESCRIPTIVE AND SURGICAL. By Henry Gray, F. R. S., &c. Philadelphia: Blanchard and Lea. Second American Edition, from the Revised and Enlarged London Edition. For sale by Messrs. Roman & Co., Montgomery street, San Francisco.

WE are glad to see that a second edition of this valuable work has been so soon called for, as it is a sign that its merits are now appreciated, and that it is superseding the other less perfect treatises on the same subject.

We shall not attempt to give a specimen of the work by quotations. It is written in a clear and rational manner, and is the least uninteresting of all works on the subject we have consulted, the author having rejected a great deal of the dry rubbish usually found in treatises on anatomy, and introduced, as far as the subject permits, a great many practical and philosophical reflections.

The work is profusely illustrated, the great number of the designs are original, and the figures being larger than those usually found in anatomical works, afford much clearer information of the relations of the parts than can generally be obtained from anatomical figures. This edition has been enriched with many new illustrations, most of which are valuable, particularly the sections of the different regions. In these days of progress, when surgery is taking such unheard of liberties with our living tissues, in the way of resections, excisions, subcutaneous operations, &c., a trustworthy and intelligent work on anatomy can scarcely be dispensed with by any member of the profession engaged in active practice, and we are confident that none can be found so well calculated to furnish the desideratum, as the work of Mr. Gray.

ON BANDAGING AND OTHER OPERATIONS OF MINOR SURGERY. By F. W. Sargeant, M. D. New Edition, with an additional chapter on Military Surgery. 1862. Philadelphia: Blanchard & Lea. For sale by Messrs. Roman & Co., San Francisco.

THIS is a useful manual, containing a great deal of that little information on which the success of great operations so often depends. In accordance with the warlike fashion of the age, a chapter has been added on Military Surgery which aspires so be something above the rest of the work, as its author, Dr. Atlee, does not confine himself to the minor operations, but attempts to give a short treatise on the subject generally. We think he would have made the work more valuable had he given the same amount of labor to carefully introducing into the body of the work the improvements that have been made in minor surgery, since the publication of the first edition in 1848.

We find no mention made of wire splints, or of plaster of Paris bandages;

gutta-percha is entirely ignored, and no notice is taken of the methods of bandaging after subcutaneous operations on tendons, where so much depends on the proper application of the apparatus. There is also a class of operations which have been largely performed of late years, but which had hardly been introduced when the first edition was published, viz,, resection of the joints; and of these not a word is said, although the success of these operations depends so much on the after treatment.

REPORT OF A COMMITTEE OF THE ASSOCIATE MEDICAL MEMBERS OF THE SANITARY COMMISSION ON THE SUBJECT OF VENEREAL DISEASES, WITH SPECIAL REFERENCE TO PRACTICE IN THE ARMY AND NAVY.

IN the *American Medical Monthly*, we find the above report inserted at full length, occupying some ten pages. It seems to be an epitome of Dr. Bumstead's work on venereal diseases, which we reviewed a few months since. The report commences with an observation which under any circumstances would be gratifying to our citizens, but of which the importance can only be fully appreciated in connexion with the context. The Committee observes:

> "It is in the highest degree gratifying to be able to assert, upon the authority of the reports of the surgeons of the United States Army now in the field, that in modern times there has never been collected so large a body of men, among whom the venereal diseases have prevailed to so small an extent."

It is a most fortunate thing indeed for the efficiency of our armies that such is the case, for did gonorrhœa exist to any extent, a large portion of our forces might be on the sick-list just when they were wanted, as the report recommends a treatment by which a soldier would be kept from duty on an average from twenty to thirty days, instead of being fit for service in two or three days, as would be the case were a more rational treatment followed.

Section first contains a series of propositions on preventing venereal diseases, amongst which we find the following, the absurdity of which when applied to gonorrhœa, must be apparent to any practical surgeon who is at all aware of the proper method of treating the disease:

> "No person with any venereal disease, however slight, should be allowed to remain in quarters, but be at once transferred to the hospital."

The second section, on "On Gonorrhœa and its Complications" commences with the following *important* observation:

> "The idea that gonorrhœa is dependent on the syphilitic virus, and requires the use of mercurials, is without foundation."

What must be the amount of medical knowledge in the surgeons of the army, when the Committee consider that they have to be reminded of a fact of which a three months' student of medicine is never ignorant? Sadly, indeed, must the army-examining boards have performed their duty, if there is to be found amongst our army surgeons such gross ignorance of their profession, as the publication of the above fact would imply. We then have recommended the old copaiva and cubebs—purging and antiphlogistic treatment—a treatment by which, as we have already stated, the soldier would, on an average, be kept from duty for from twenty to thirty days, instead of three or four, as would be the case under a more rational plan of treatment. It is really unfortunate that a body occupying the position of the Committee, and comprising probably amongst its members surgeons of some standing in the profession, should have allowed their names to be appended to a report which, as before stated, is nothing but an epitome of the very faulty article of Bumstead on the same subject.

But not content with Bumstead, in recommending the slowest possible method of treating the disease, the Committee have gone still further, as in instruction 5 they state:

"Medication, both external and internal, should be continued for ten days after all discharge has ceased."

This is really out-Bumsteading Bumstead. Twenty days for curing the disease, and ten days subsequent treatment would give thirty days on the sick-list for each case of gonorrhœa! and as we may calculate that at least two per cent. of the troops suffer from this disease, we have the country losing the services and paying for the keep and medicines of twelve thousand men for thirty days instead of three or four. Without an unbounded faith in the loyalty of the Committee, and a perfect conviction that none of its members are interested (pecuniarily we mean) in copaiva and cubebs, we might have looked for some dark motive as dictating a treatment that will deprive the country of so large a portion of her brave defenders, and impose such an expense for the purchase of copaiva and cubebs, on our already over-burdened treasury. Had not the interests involved been of so serious a character, the Committee might have been excused for sending in a report which is merely a re-hash of the exploded methods of treating the disease; but, when we consider how important it is for the country that every soldier when sick, should be restored to duty as speedily as possible, we think some little pains should have been taken to ascertain and recommend the best methods of treatment.

Fortunately, notwithstanding the almost culpable laxity of the army medical examining boards, there are, we are sure, but few, if any, of the military surgeons whose knowledge in regard to the treatment of gonorrhœa is not far in advance of the plan recommended by the Committee.

In their remarks on syphilis, the Committee have adopted the dualistic view of the disease; and we believe they are right. The result of the treatment amongst the troops cannot fail, if properly recorded, to furnish very important evidence on this still disputed point.

They have recommended some very useful reforms as regards the general direction of the medical department of the army, and we think it a pity that they did not confine their labors to this subject, trusting that the army-surgeons knew how to treat the more ordinary forms of disease without their instructions.

Since the above was written, we have received a report which Dr. Trask has transmitted to the Medical-Director on this coast, on the results of his treatment of gonorrhœa whilst in charge of the troops located at the Presidio and Camp Downey. It will be seen that when treated by the plan which was the most successful, viz., the administration of terebinthine insp., the average duration of the disease in 69 cases was but eight days.*

As each soldier when in the field costs $30 a month, the plan pursued by Dr. Trask, if carried out in the army would effect a saving of $209,000 a month. By the method, however, we recommended some years since, and which we more recently republished in the February number of the JOURNAL, we think the time of treatment could be still further diminished one half, and and at least $300,000 a month saved on this one item—for it must be remembered, that whilst in hospital the soldier costs as much or more than when on duty, and for all military purposes he is perfectly useless.

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* We have no experience of the treatment of the disease by enemata as tried by Dr. Trask, but it certainly was not so successful as the inspissated turpentine. As this latter remedy does not distress the stomach, it might be combined, if thought desirable, with the local treatment we have advised.

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EDITOR'S TABLE.

WE are happy to welcome back again Dr. McCormick, who has resumed his old postition of Director of the Medical Department and Purveyor for the Pacific coast. Dr. Coolidge, who has held the office for some months' left for the East on the steamer of the 10th.

THE annual meeting of the French Mutual Benefit Society was lately held in this city. The object of the Society, we may observe, is for affording medical aid to its members when sick. They have quite an extensive hospital in the city, in which members of the Society are received, and in which those who are not members, can be treated by paying. Amongst the items of expenditure for the past year are some which offer a strong contrast with those of our own hospitals. For instance, the four principal items in the way of provisions are—

Bread	$ 474 36
Meat	1896 68
Milk	343 25
Wine	1097 00

It will be seen that the amount paid for wine exceeds considerably the cost of the milk and bread together, and is more than half of that of the
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meat. We think that the dietary of our own hospitals would be improved by the use of a little more wine, and that the additional cost would be more than compensated by the more rapid convalesence of the patients.

The main object of the Society is to relieve its members when sick, and as its aim should be to obtain the best medical advice that can be procured, we are surprised that the directors should have thought it desirable to pay but $100 a month for the services of a physician, about the same probably as they pay their cook. How they can expect any good physician to visit the hospital (situated on the outskirts of the city) daily, and sometimes twice a day, and also to attend at their own homes when sick those of its members who reside in the city, for so small a pittance we cannot imagine. Certain we are, that no physician whose talents command the confidence of the public, could afford to sacrifice the necessary time for so small a remuneration; and we should think it but a small consolation to the members of the society when sick, to know that the Society economizes a few hundred dollars a year by providing them with second-rate medical attendance. The interests of the Society must also suffer in the falling off of the number of paying patients, which must be the result of such mistaken economy. We believe there are few pauper establishments in the State where a much larger salary is not paid for medical attendance.

MEDICAL REPORT OF THE PACIFIC DIVISION OF THE ARMY.—The mean strength of the army on this coast during the month of February, 1862, was 5,420 men, of which 4,766 were Volunteers and 654 Regulars.

The number remaining on the sick report of January 31st, 1862, was 362; the number of new cases, 1425—giving an aggregate of 1,787. Of these were returned to duty, 1314; discharged, 6; deaths, 2—1,322; leaving under treatment, 465. One death was caused by a gunshot wound, and one by variola.

Of 95 cases of fever reported, 8 were congestive; 46 intermittent quartian; 21 tertian; 14 remittent; 6 typhoid; 34 eruptive.

There were 340 cases of diseases of the digestive organs (89 constipation, 83 acute diarrhœa); 411 cases of diseases of the respiratory system (367 catarrhs); 49 cases of diseases of the brain and nervous system; 3 cases of diseases of the circulatory system; 116 cases of diseases of the urinary organs; 44 primary syphilis; 32 secondary syphilis; 52 gonorrhœa; 191 cases of diseases of the fibrous and muscular structures; 131 rheumatismus acutis; 49 rheumatismus chronicus; 20 abscess and ulcers; 132 wounds and injuries; 28 diseases of the eye; 3 diseases of the ear; and 53 cases of various diseases.

The largest number of cases was at Camp Latham, Southern California, 232, the mean strength being 359. The next largest was at Benicia barracks and arsenal, 222 cases, the mean strength being 597.

The per centage of sick during February is 26.29.

HEALTH OF SAN FRANCISCO FOR APRIL.—During the last month, the number of deaths was 174, showing a most favorable sanitary condition, as compared with the two preceding months, the number in March having been 207, and in February 222. The epidemic of small-pox is evidently on the decline, not more than half as many deaths resulting from that disease during the last month as during the month of March. Amongst 116 deaths recorded at the Lone Mountain Cemetery, 5 were from typhoid fever, and 7 from diseases of the brain. Consumption carried off 20 against 28 in the preceding month. Of children under three years of age, there were 27 deaths at the Lone Mountain Cemetery, amongst 116, or less than one fourth, whilst the records of the Catholic Cemetery give 25 deaths of children under three years of age in 50 interments, or just one-half. This extraordinary difference in the rate of infantile mortality between the Protestant and Catholic portion of our population is owing, undoubtedly, to the fact of the proportion of children amongst the Irish being much larger than amongst the American element of our population, a fact which under a moral point of view, is certainly in their favor. At the same time, there can be no doubt but that unfavorable hygienic conditions, and want of proper and rational attention, has a great deal to do with increasing the mortality amongst the children of the lower classes of Irish.

NEW YORK ACADEMY OF MEDICINE.—We have received the following communication from the New York Academy of Medicine, and have great pleasure in giving it publication:

NEW YORK, March 20th, 1862.

At a stated meeting of the Academy held last evening, the following preamble and resolutions were presented by Dr. A. H. Stevens, and unanimously adopted:

Whereas, During the present unhappy war many of our professional brethren in service among the combatants have risked their lives, or gone into voluntary captivity, rather than desert their sick and wounded, and have exercised their skill alike on friend or foe; Therefore,

Be it Resolved, That in such conduct this Academy recognises the true spirit which should ever animate the ministers of humanity, and in testimony whereof,

It further Resolves, To welcome to its sittings those who have acted under these self-sacrificing and generous impulses.

On motion of Dr. J. H. Griscom, the Secretary was directed to send a copy of the above to each Medical Journal in the country.

J. A. HINTON,
Recording Secretary, 41 West 32d Street.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late John W. Francis.

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SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE.' In addition to such resume will be embodied contributions from eminent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the Summary of Medical Sciences will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "The Epitome"—and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. Wells, M. D.—Dear Sir: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage and can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Physiognomical Diagnosis of Disease.

BY THOMAS LAYCOCK, M. D.,
Professor of Practical and Clinical Medicine in the University of Edinburgh.

PROFESSOR LAYCOCK, in a recent lecture at the Edinburgh Royal Infirmary, makes the following interesting and instructive remarks, which we extract from the *Medical Times and Gazette :*

You cannot fail to notice how numerous are the cases of pulmonary consumption we have to treat in the clinical wards. I am satisfied that neither the climate of Scotland nor the constitution of the people specially predisposes to the disease, but rather the lamentably defective arrangements of the workshops and dwellings, and especially the sleeping-rooms. The use of what are termed bed-closets (which are enclosed sleeping spaces at the end of a sitting-room) is very common here. You have a "genteel" sitting-room for show in the day, and a mere "black-hole," as regards ventilation, for use during the night. Then, again, the system of houses in flats, good in itself, is abused by such an arrangement in the majority, that the water-closet is ventilated from the common stair, which is consequently pervaded by a water-closet atmosphere and odor. Indeed, hygienic conditions are so obviously the causes of phthisis, that it has been denied that constitutional or diathetic causes have any influence. Now, this is contrary to a large experience, and, therefore, a practical error. As it is of importance to know and diagnose these constitutional causes, I propose to call your attention to a more accurate diathetic diagnosis of pulmonary consumption, as an essential step towards a more accurate pathology. This, I am satisfied, demands a more scientific method as regards the etiology of phthisis; of the microscopic anatomy, of tubercle we have, for the present at least, had enough; and then we know that to the utmost, our knowledge will be but little available to practicable ends, unless we are also able to discover and meet the conditions under which the tendency to pulmonary tuberculosis arises.

Now, before we can determine the diagnosis of this tendency, two or three preliminary questions must be considered. The first is, Is there such a vital condition as a diathetic tendency to tubercular disease of the lung? Dr.

Watson may be held to express the general and most recent conclusions of the profession upon this point (as he certainly expresses the results of my own experience in at least a certain number of cases), when he affirms, in his published lectures, that the formation of tubercles in the lungs is so closely linked with the existence of the scrofulous diathesis, that it is almost a necessary condition of the development of tubercular disease. Admitting this as to a proportion of the cases, another question arises, Whether any other diathetic condition predisposes besides the scrofulous? The answer must again be in the affirmative: consumption is very apt to arise in gouty families, under certain conditions, and in persons predisposed to degenerations of the nervous system. But we must further inquire, whether there is not a special predisposition in families and individuals to lung disease, just as there is to heart and brain disease, independently of any special diathetic predisposition? All experience is, I think, in favor of the affirmative answer to this question also.

Taking these propositions as starting-points, we have next to inquire whether the nature of the scrofulous diathesis, with which consumption is commonly associated, is clearly determined, the kinds of tuberculosis or other morbid structural change ascertained, and an available physiognomical diagnosis laid down. The answer, I think, must be in the negative. As to the scrofulous physiognomy, we have very various and conflicting statements. Thus it is said that a fair complexion and blue eyes indicate it; but in my experience, the worst forms of scrofula occur in persons with dark complexions. Or take Dr. Watson's statement of the physiognomical signs, and apply it to the cases of phthisis we have had under observation since the session began, and you will find that you can make little of it practically. We have, indeed, no patient except this lad from the "skin ward," with favus, who has a distinct scrofulous physiognomy. Dr. Watson states very accurately the signs of the diathesis as manifested in children, and thousands of scrofulous children in the large towns of England correspond to this description; but then none of our cases of consumption are in children, and none of them could or would tell us, except in the negative, whether during childhood they had "pale and pasty complexions, large heads, narrow chests, protuberant bellies, soft and flabby muscles, and a feeble circulation." Then there is another class of persons with tubercular tendencies, which Dr. Watson truly indicates as characterised by light or red hair, grey or blue eyes, with large sluggish pupils and long silky lashes, a fair, transparent brilliancy of skin, and rosy cheeks, with "eager tempers and warm affections, lively, ardent, imaginative, and susceptible," a complete contrast, in short, to the preceding, and certainly not scrofulous. Now, as to the majority of our cases, we may say that they are of every temperament and diathesis, and that we cannot bring them under either of these two categories.

With such diversity of constitutional tendencies, there ought to be a corresponding diversity in those structural changes which occur in the lungs or other organs, known as tuberculosis; but upon this point experience and research afford us still less information than as to the physiognomy and diathesis—so that forms of lung degeneration, widely different in all essential details, are grouped together as being similar, because of their resemblance in a few leading characteristics. There have been, it is true, long controversies as to whether there is any difference between "scrofulosis" and "tuberculosis," as to the "constituents" of tubercle—as to whether it be a "deposit," or as to whether it results from inflammation," but with such infertile results that the pathology of pulmonary phthisis is still more or less imperfect upon almost every point. The main advance has been in the better discrimination of chronic bronchitis and bronchorrhœa from phthisis, by means of physical diagnosis, and in the more successful treatment by cod-liver oil. There are, doubtless, advances; but when we remember how widely and destructively fatal the disease is, and compare our progress with what we *ought* to know, rather than what *was* known, we have little reason for congratulation.

Now, by way of clearing the way to a better method of research on a really scientific basis, let me point out to you the leading points for clinical observation and inquiry in cases of phthisis, both with reference to diathetic diagnosis and etiological and anatomical research. 1. You can class your cases under two heads of difference, namely, whether there is a constitutional predisposition or not. Now, it is clear that in those in which there is no constitutional predisposition, the disease is local—the result of causes acting upon the lungs either directly or indirectly, and the constitutional symptoms *follow* upon the pulmonary disease. In short, there is no pretubercular stage. This difference implies at least, a different prophylaxis and treatment, if not a different anatomy. Of this kind of phthisis, without pretubercular stage, we have several examples. There is that of the "navvy" in Ward II, who was in perfect health up to a few weeks ago, and only had pulmonary symptoms subsequent to an injury to his leg, which confined him to bed, There is the young Irish woman, a field laborer, who has no marks whatever of a diathetic predisposition, and whose illness dates from what was evidently an attack of pneumonia. In these there was certainly no pretubercular stage, but there was probably a series of pre-existent hygienic conditions as to sleeping, or clothing, or food, which predisposed the lungs to take on morbid action on the application of exciting causes. Although the morbid changes in the lungs in cases of consumption be much the same as to the final results in the organ and on general health, it is quite certain there are varieties of tubercle. It is, therefore, an important object to determine what tissues are involved in the change, or whether they are all equally affected alike by the causes of degeneration, or in what order the series of changes takes place: that is, whether they operate first on the blood, or on the mucous membrane of the capillary bronchi, or on the air-cells, or the connective tissues, or the blood vessels, or the respiratory system of nutrient nerves; for the predominant tissue affected being determined, we can then estimate the influence of diathetic tendencies in any given case, and the results thereof. Thus, gouty persons under certain conditions have children predisposed to consumption, but then it is of a kind differing essentially from that which attacks the children of scrofulous persons, and involves a different class of tissues. 3. Having thus separated the diathetic class of causes in their relations to the tissues involved, we cannot connect them with those causes which are more directly local, occasional or exciting, for since these will of themselves excite pulmonary tuberculosis, they will the more readily operate when diathetic or constitutional conditions predispose to morbid action. 4. But experience amply proves that there may be some predisposition to pulmonary consumption derived from parents, although they have not had the disease, nor, indeed, shown any tendency to it. This is, in fact, a very common occurrence, and is, perhaps, the most striking illustration of the general law of hereditariness I formerly laid down, namely, that modes of vital action begun in the parent, are continued and become more manifest in the offspring. For although such parents as I refer to are free from actual lung disorder, they will be found to have been subjected to conditions which tend to impair the respiratory processes and the proper nutrition of the lungs. Hence, in this, as in all other constitutional diseases, we have to inquire into the etiological condition of parents as to imperfect lung action. Now, we may, I think, assume as an acknowledged general fact, that sufficient bodily exercise in a pure atmosphere of varying temperature is essential to perfectly healthy lung-action; consequently, whatever circumstances lead to a sedentary or inactive life of parents in a more or less impure atmosphere of a uniform medium temperature, whether they be employments, habits, or domestic conditions, tend to impair lung action in them, and to induce in their children a predisposition to suffer from pulmonary diseases of a low type, although not necessarily tubercular; and this predisposition will be all the more effective when it is derived from both parents. Now, this is what constantly happens among persons who follow sedentary employments, or lead sedentary lives in our large towns; and in this way a diathetic predisposition to consumption and other pulmonary diseases is constantly developed amongst town-bred populations, of whatever temperament or diathesis they may be. That will only determine what pulmonary tissue or tissues shall be first or predominarily affected, or, in other words, the kind of tuberculosis or degeneration of the lung. The phthisical cork-cutter in Ward I., with hæmoptysis and pneumothorax, is an illustration of this class of cases. He is town-bred, of the bilious temperament, and has that bird-like physiognomy which indicates degeneration. His father was a cork-cutter, and both his parents (town-living) died at an early age. In him his employment, conjoined with dissipated habits as to women and drink, has been the exciting causes of phthisis acting on hereditary tendency to pulmonary disease. Seeing, then, we have to discriminate the local from the constitutional causes, so we must distinguish physiognomically between a hereditary or constitutional tendency to pulmonary diseases specially, and that general constitutional tendency which determines which class of structures or tissues in the lungs will be primarily or principally affected.

Physiognomical Diagnosis of Tendencies to Lung Diseases.—Two leading points are to be noticed in examining into weak lungs; namely, the osseus and muscular conformation, and the movement of the thorax, or cavity in which respiration is carried on. Insufficient lung-inflation will lead to a contraction of the thorax (which shapes itself to the size of the contained viscus) and to defective development of the respiratory muscles. This change will be most obvious at the point of the thoracic cone, because insufficient lung inflation is first developed at the apices of the lungs. Hence, narrow chests are often indicated by a throwing forward of the shoulders, while at the same time the neck is elongated, and therewith the cervical group of respiratory muscles. I think it is this insufficient expansion of the apices of the lungs, the consequence of all those conditions of life in which the organs are not called into active exercise, which developes a tendency to imperfect nutrition of the apices, and those states which are apt to terminate in hemorrhagic congestion, and amyloid and fibroid degeneration, as well as tuberculosis. The thorax is rarely perfect in form in town-bred or degenerate people; the kind of distortion depends, however, very much upon the thoracic muscles or groups of muscles involved; in one we have a keel-shaped sternum, in another the thorax is too barrel-shaped, in a third there is more or less spinal distortion or twisting of the ribs. Then, again, there are distortions, the result of thoractic diseases of infancy. In all these varieties a special etiological diagnosis is necessary to supplement the physiognomical. As a general rule, however, unsymmetrical distortions indicate unequal muscular action, and this, again, some lesion of the respiratory system of nerves.

Degeneration of the Nervous System, and Consumption.—The activity of respiration, and the blood-supply and nutrient activity of the lung-tissues, are deeply modified by causes acting directly on the lungs through the nervous system. All depressing emotions, and all conditions whatever which act depressingly upon the respiratory system in particular, are of this class. In this way we can explain how an attack of influenza, or rubeola, or sensuality, on the strain of the system consequent on marriage, will induce phthisis. Degenerations of the nervous system are greatly influenced in this respect. Dr. Boyd, of the Somerset County Asylum, has stated the causes of death of 295 male patients, the mortality per 1000 admissions being 324. Of these 295, one-half, or 147, died of diseases of the respiratory organs, chiefly pneumonia and phthisis, and 111 of disease of the nervous system. The hygienic conditions of all large institutions, whether asylums, schools, or (notoriously) barracks, are favorable to the development of pulmonary disease, yet nothing like to this extent, which is more than twice the ordinary rate of mortality in the general population. But this only indicates a portion of the influence of the nervous system in the development of phthisis. The first, or pretubercular stage is usually characterized by more or less mal-assimilation of the food, and this, although not of itself a cause of death, is the cause of the tendency to tuberculosis, and is one of the most common results of depression of the pneumo-gastric system; or, in other words, a nervous dyspepsia is very often the first stage of pulmonary consumption, and accompanies the disease throughout. Now, this mal-assimilation and nutrition is a characteristic tendency of the scrofulous diathesis as regards the whole body; but the degenerations of the nervous system may only influence special organs in relation with the nerve-centres, as the heart, or only special tissues of the organ, as the valves or coronary arteries of the heart. This is the law as to pulmonary degenerations due to influences acting on the pulmonary nerves. The air-cells, or bronchi, or blood-vessels, may each be primarily and predominantly involved in morbid innervation; but the kind of tissue-change will depend first upon the tissue; secondly, upon general causes influencing its nutrition.

Physiognomy of the Scrofulous Diathesis.—What tissue or group of tissues, then, are predominantly affected in the scrofulous diathesis in reference to the diathetic diagnosis of consumption? The answer must be, I think, the blood, the glandular system, including the mucous membranes, and the nutrient system of nerves. But these are not predominantly affected alike at all ages, for the glandular system suffers most at childhood, and the nutrient system of nerves at puberty. The condition of the blood is that of the lymphatic temperament; the red corpuscles are comparatively fewer, and the albumen in excess; hence the pallor and delicacy of tint of the scrofulous diathesis. As to the lymphatic glands, they have long been recognized as the seat of scrofulous degeneration. Formerly, when persons were "touched" by the monarch for the cure of scrofula (hence known as "the King's evil," just as we say Bright's disease), the Sergeant-Surgeon had to select the Royal patients. Wiseman performed this duty for Charles II; and in his treatise on the disease, while, like a true courtier, he expresses his full belief in the efficacy of the Royal touch, (for, he says, "the personal experience of many thousands now living can witness it,") he discusses the marks of scrofula, and appeals to the profession in general whether or no tumours about the neck are judged to be "the evil," which are not, but adds, "These which we present to your Majesty, are chiefly such as have this sort of tumour about the musculus mastoides, or neck, with whatever other circumstances they are accompanied; nor are we difficult in admitting the thick-chapped upper lip, and eyes affected with a lippitudo; in other cases we give our judgment warily." Now, these are the marks of scrofulous diseases, and not of a scrofulous diathesis. Modern surgeons have not gone much beyond Wiseman. The late Mr. B. Phillips published a very elaborate work on scrofula; he made enlarged glands, with sinuous ulcerations and scrofulous or enlarged joints, the diagnostic marks, and he limited the inquiry to boys and girls not exceeding the age of 16. But then these have little value in the diathetic diagnosis of scrofulous phthisis. We rarely observe them in the clinical wards, and only one of our cases has any glandular enlargement. Of 352 cases of phthisis examined by Mr. Phillips at the St. Marylebone Infirmary, only seven had scars the result of scrofulous abscesses. Professor Walsh says, the external lymphatic system is rarely tuberculised; and Hasse states, as the conjoined result of his own researches and those of Louis and Mohr, that the cervical glands are tuberculous in only 5 per cent. of cases of phthisis, while the bronchial glands are so in 20 per cent. Now, all this does not prove that the diathesis is not a predisposing cause of consumption, but only that a certain form of scrofula does not occur at the ages when scrofulous consumption occurs. Again, this diathesis is that which of all others most highly predisposes to death at early periods of life; so that in an equal number of children of each of the diathesis born, by far the largest quantity would occur amongst the scrofulous, and thus there would be fewer scrofulous persons living at the adult ages than others.

Clinical Remarks on the Treatment of Stricture by Rapid Dilatation.

BY DR. PAGET.

In the lecture last reported, Mr. Paget spoke of the treatment of retention of urine consequent upon stricture. In the first part of this lecture he gave the particulars of a case of stricture which he had treated by the method of rapid dilatation. The patient, a man aged 30, three and a half years ago, ruptured his urethra by falling on the gunwale of a boat. By treatment, the urethra was restored, with a moderate amount of stricture. He then neglected his case for nine months, but was at last obliged, by a return of difficulty in micturition, to apply for assistance. During the last six months he had been under treatment, but no instrument was passed into the bladder. He was then sent to St. Bartholemew's Hospital.

He was kept quiet in bed for a few days, no attempt being made to pass an instrument. On the necessity of rest previous to the use of instruments, &c., in treating cases of stricture, Mr. Paget spoke in the last lecture; it was necessary, he said, in all cases of bad stricture. In a few days a trial was made, and a small instrument was passed into the bladder, and again a few days after. On the second attempt, however, a severe rigor followed. Mr. Paget considered that this was a fair case for treatment by rapid dilatation. The instrument he used for this purpose was that invented by Mr. Barnard Holt. So far the result was satisfactory, as No. 8 could afterwards be easily passed, and the man had had no bad symptoms. Here, then, by this rapid method of dilatation, various stages of treatment, generally tedious, had been stepped over.

Of course this treatment is only to be thought of in organic stricture, in which there is a good deal of fibrous thickening. Just as in scars, as often seen after burns, contraction generally goes on; so in the urethra, the fibrous material deposited in the walls of the urethra goes on contracting. It is in this condition, and not in stricture from spasm or increased vascularity, that such treatment is admissible.

In all such cases, except a few rare exceptional ones, if an instrument of any size can be passed into the stricture it may be cured by gradual dilatation. In Kenton Ward a patient is now able to pass No. 8 easily, in whom it was difficult on his admission to pass the smallest-sized bougie. In this method of treatment it is necessary to increase the size of the instruments very gradually, and thus a long time is taken up in treatment. The loss of many weeks is to a laboring man, or indeed to any one who has to work, of so great consequence, that it has long been a desideratum to find a rapid and safe means of curing stricture. By gradual dilatation in a bad case of stricture it will be perhaps twelve months before the patient can do without passing an instrument every week or two. This method, too, is not only long and tedious, but it is also liable to vexations and annoying troubles, and considerable risk to health. Hemorrhage, inflamed prostate, orchitis, &c. And after all, when the patient is fully relieved, he is not finally cured. After twelve months' treatment he must still every few weeks or months pass an instrument in order that he may not lose ground. To recapitulate, gradual dilatation is tedious, liable to risk, and is not finally curative.

Surgeons have long endeavored to find some method which would cure rapidly and safely. Mr. Paget said when he was a student it was not an uncommon practice to pierce a stricture. A catheter was passed down to stricture, and then a stillette was pressed through its end, and if possible, through the stricture. This method is now almost disused, and is not to be recommended except in some cases in which the stricture is in the most anterior part of the urethra.

Another method introduced by Mr. Syme—the so-called perineal section—is to divide the stricture in the perineum. First, to pass a small grooved staff through the stricture, and then, inserting the knife in the groove, behind the stricture, to cut forwards.

This done, a large instrument can easily be passed into the bladder. There can, Mr. Paget said, be no doubt of the great advantages of this method of treatment. To step at once, without tediousness and with little danger, from No. 1 to No. 8 is a point of great consequence. And when the whole stricture is thoroughly divided, the cure might be considered permanent. He had watched cases for several years after the operation, and no contraction had occurred; in fact, the great value of Mr. Syme's method is, that it may be a lasting cure. It is not however, altogether free from risk to life; and, although this risk may not be greater than three or four per cent., yet for strictures that may be cured by other means, this mortality, although comparatively small, ought to be taken seriously into consideration. This is the only objection. Although as an operation on persons of good health it is safe, yet, as many suffer from diseased kidneys, it will now and then be followed by death.

There are cases in which this method is far the best—cases in which there are large and numerous fistulæ, and also cases in which there is large perineal induration, which induration is certain to go on contracting, and when the stricture is temporarily cured, nearly certain to recontract.

Mr. Paget next spoke of the methods of treating stricture by internal incision.

He then showed and explained the action of Mr. Wakley's instruments for rapid dilatation of stricture, and also those used in this case—those of Mr. Holt. The principle was the same in both Mr. Wakley's and Mr. Holt's instruments, and it might be difficult to say which was the better plan.

In the case the subject of these remarks, Mr. Paget said that all the advantage of speed had been obtained, and also of safety—no more risk than in passing an ordinary catheter. The only question is, Is this method finally curative? On this point more experience is required. Mr. Holt's experience has been very extensive, and it is difficult to believe, from his cases, that the cure is not often permanent.

If, Mr. Paget said, rapid cure is determined on, it should be the rule to keep perineal section for the very worst cases. In rapid dilatation, as well as in perineal section, an instrument of some kind must first be passed. But, is it always possible to pass an instrument? The cases in which it is not possible are certainly very few in number; but in strictures consequent on injury, producing complete rupture and separation of the urethra, and on extensive sloughing, and in some cases of narrow crooked strictures, it may be quite impossible. It is better, Mr. Paget said, that we should act as if the stricture were permeable, until we found that every effort to get through it is unavailing. If, after the patient has been kept in bed, and if, after careful trials, the patient being under the influence of chloroform, we still find it impossible, then neither of the above methods could be tried. Such cases are, however, he repeated, extremely rare. —*Medical Times and Gazette.*

Lectures at the College of Physicians.

Dr. Williams, in his second lecture, resumed the subject of pneumonia; observing that the chief special sources of danger in this disease are—a rapid coagulation of the blood in the pulmonary vessels, producing asphyxia; or an attack of pyæmia, as a result of the third or suppurative stage of the inflammation. Residual deposits are also usually left in the lungs, as the foundations of future disease. He referred to the numerous cases of double pneumonia, in which the patient has escaped with life, by reason of the clearing-up of the disease in one lung, before it has obtained any serious hold on the otner. In speaking of gangrenous abscess of the lung, the lecturer affirmed that it is at least allied to, if it be not actually in itself, an inflammatory process; and that it probably arises from the obstruction to the circulation caused by local congestion. Very few cases of pulmonary abscess occur without the very characteristic gangrenous fœtor, which, though horribly offensive when the matter is first coughed up, merges gradually into a not unpleasant odour, somewhat resembling that of cowslips. This change is interesting, both as affording a diagnostic sign of the disease, and as illustrating the curious alliance which undeniably exists between foul and agreeable smells. The cough by which this hideous poison is removed from the chest is more violent and convulsive than any except whooping-cough; and by the force with which it shakes and almost rends the unfortunate patient, aided by the fœtor of the pus and fragments of lung-tissue which are sometimes brought up, exhausts his strength often to a very alarming degree. The similarity in the character of the cough induces Dr. Williams to think that whooping-cough also is an effort of Nature to get rid of some irritating poison from the lungs and bronchi; and dysentery, with its violent straining and sloughing of pieces of intestine, may be an analogous disease. All these disorders are best treated by means which modify the poison at the surfaces where it is accessible. The treatment of abscess of the lung should be mainly antiseptic, and the best agent, Dr. Williams believes, is the nitro-muriatic acid, which may be given in doses of thirty, forty, or sixty minims several times a day with safety, when combined with glycerine. Creosote and chloroform should be inhaled, and the former should be taken internally combined with morphia. The room also should be fumigated. All this time the nutrition must be carefully attended to, and the strength supported in all possible ways; for what is now going on is not inflammation, but a simply exhaustive process. Though, however, the disease is so severe, the result is not unfavorable. Of eleven cases which Dr. Williams finds among his notes from 1849 to 1855, seven recovered completely, one imperfectly (but in this case diabetes was also present), and three died. In one case there was pneumothorax, in consequence of rupture of the lung, which was followed by a spontaneous opening in the wall of the chest. A frequent cause of protracted recovery is the sudden bursting out afresh of the abscess, which may occur long after the mischief is apparently healed. This depends principally on the position of the abscess, which, if situated low down in the lung, is seldom completely evacuated; the upper part heals and closes up the outlet, and a fresh accumulation of pus takes place below, to run the same course as the first abscess.

Pleurisy, to which Dr. Williams next adverted, is strongly distinguished from the preceding disease by its local character, and by its being dangerous only from the mechanical effect of the adhesions which it leaves, and of the effusions which accompany it. The presence of a large quantity of fluid, whether serous or purulent, in the chest, naturally causes obstruction of the circulation, and displacement and compression of the organs adjacent to it; and tapping is the remedy in either case. If the effusion is purulent, the blood may be secondarily affected; or the toughness and contractile power of the lymph may compress the vessels and tissues so as to render them useless. But usually the adhesions are sufficiently supple, and recovery is not prevented. In one fatal case related by Dr. Williams, the adhesions were so extensive that it was difficult to find a place where a trocar could be introduced with safety. Many extremely unpromising cases, even when the pus is very offensive, ultimately recover; and the symptom of œdema of the integuments is declared by Dr. Williams to be of no weight whatever, either as indicating the presence of pus, or on account of serum not to be removed without tapping. At the first onset of this disease, as in pneumonia, blood-letting is sometimes of great benefit; then diuretics and mercury should be given, the latter to be used as a chologogue, but not to affect the system. Tapping should be resorted to as a means of relieving mechanical pressure when there is no prospect of the removal of the effusion by natural means. If the lung is perforated, and decomposed pus finds its way into the bronchi, the odor of the sputa may easily be distinguished from that produced by abscess of the lung, by the absence of the peculiar gangrenous smell. The chronic results of pleurisy and pneumonia combined often remain fixed in the lung, and cause permanent damage. They most commonly consist of deposits and consolidated tissue, which degenerate into tubercle. Often, however, the effect of the condensation of the vesicular structure, and subsequent exclusion of air, is a dilatation of the bronchial tubes. The lungs in these cases are dense and dull, and the amount of tubular breathing, pectoriloquy, and other signs may easily induce the belief that phthisis is present. The chief means of distinguishing between the two states are the absence of progress in the disease, and the comparatively healthy appearance of the patient. In some cases the expectoration is slightly purulent and even offensive, from the retention of mucus in the widened extremities of the tubes; but the apparent signs of phthisis are usually confined to the central and lower portions of the lung. Some cases, however, end in phthisis; others in dropsy, produced by the increasing consolidation and contraction of the lung tissue, and the obstruction to the circulation. The fœtid expectoration just referred to may be compared to that very common form of ozena, which does not arise from the presence of diseased bone, but from the decomposition of a diseased plug. Asthma and emphysema occur so frequently in connexion with each other that they are best considered together. Spasmodic asthma, as Dr. Williams believes, and considers that he has proved by experiment, is caused by a sudden and powerful muscular contraction of the bronchial tubes; which can lessen their calibre sufficiently to offer great obstruction to the passage of air. Such a contraction is excited in some persons by the smell of a stable, of new-mown hay, or of ipecacuanha, or by dust in the air; and certainly is a frequent complication of bronchitis. The breathing is effected with a peculiar wheeze, not so much with panting and gasping. In subjects of spasmodic asthma the disorder is frequently complicated with partial consolidation of the lung, or with phthisis, or deposits of calculus or other matter of the bronchial glands, especially near the apex of the lung; and it frequently accompanies or alternates with eczema infantile; or is followed and relieved by an attack of gout. But this difficulty in the entrance and exit of air cannot continue long without producing ulterior effects, which are usually a congestion and thickening of the bronchial tubes, and permanent bronchitis; the more permanent the longer the original attack has been. Then the expiration, to which at first there was little hindrance, becomes more difficult than the inspiration, and emphysema is the result. The air-cells are distended, and burst one into the other, and it has to be explained to the patient that he is reduced to the condition of a reptile, and must accommodate his mode of life to his new organization. The presence of arcus senilis may be a useful sign in aiding us to guess whether a degenerative process is going on in the lungs, but is not infallible. When emphysema is thoroughly established, it stuffs out the chest, compresses the heart, diminishes the blood supply, pushes down the diaphragm, and causes distension of the veins of the neck and chest, and enlargement of the liver, becoming ultimately a blood-disease. On the other hand, it supersedes other diseases in the lung, and puts a stop to the deposit of tubercle.—*Medical Times and Gazette.*

The Laryngitis of Children and its Treatment.

In the opinion of Dr. Luscinsky, director of the children's hospital Mariahilf, at Vienna, hyperæmia, catarrhal, croupy and diphtheritic inflammation of the larynx cannot be accurately distinguished from each other, for they offer the same symptoms, and all of them present as a prominent feature tumefaction of the vocal cords, with more or less narrowing of the glottis. The diagnosis of laryngeal croup, based upon the presence of the pseudo-membranes, is not reliable and frequently too late. In patients apparently dying of croup. often nothing is found beyond simple hyperæmia of the laryngeal mucous membrane, with infiltration of the glottis. Where fibrinous exudation occurs, it is always surrounded by catarrhal inflammation and simple hyperæmia. Stasis arising from the last-named condition, even when alone present, produces exudation, which is characterized by young cells, either in a fluid substance, or between coagulated fibrine, as in croup and diphtheria. The diphtheritic exudation infiltrates again the mucous membranes, and, decaying. changes into a dark-colored crust, during which process fungi are frequently developed. Exudations of this kind occur either primarily or secondarily, as in exanthematous diseases, typhus, pneumonia. The croupal exudation is more superficial, though intimately adherent. It changes into a corroding fluid or a mortified discolored mass, also presenting fungi. It may likewise occur independently or follow in the train of typhus, cholera, pyæmia. Both forms sometimes mix or change into each other.

Sudden attacks of croup are exceptions, it being usually preceded by catarrh. The greater irritability and vascularity of the membranes render children so apt to suffer from it. All inflammations of the larynx, and croupy ones especially, have a fixed course and termination. On the third, fifth or seventh day after its appearance the exudation is detached, or destroyed and thrown out. This would, undoubtedly, be oftener the case in croup but for the suffocation arising from closure of the glottis.

The therapeutical indications are: to suppress the hyperæmia, statis and exudative process, and to remove the products of the latter. In slight cases, rest, somewhat increased function of the skin by the warmth of the bed, a sinapism over the chest, and some narcotic are sufficient. Hoarseness, barking-cough, dyspnœa and fever require a more powerful treatment. Cold applications must be avoided, where an inclination exists to pyperæmia of the lungs or bronchial tubes; otherwise they are of good service. The same effect, contraction of the blood-vessels, is obtained by zinc, alum, and more particularly nitrate of silver. Their application to the larynx, however, is difficult and dangerous These two methods proving insufficient, counter-irritation remains as a last resource, and it forms in fact an all-important point in the treatment of croup. A blister of sufficient size may be applied in the neighborhood of the larynx, and the blistered surface kept secreting by means of D'Albespeyres' blistering tissue, until all dangerous symptoms disappear.

In croup, the quantity of fibrine in the blood is increased. To remedy this, mercury has been properly given. But the same advantages, without the many injurious effects of calomel, may be obtained by exhibiting the alkalies, particularly potassa and soda, in combination with carbonic acid. They not only dissolve the fibrinous exudation, but prevent the development of too much fibrin in the blood. Large doses should be given—from one-half to two drachms a day—and continued as long as there is any inclination to exudation. Spasmodic contraction of the glottis in croup indicates the use of belladonna or morphia in small doses At a later stage, an emetic may be necessary, and in such a case sulphate of copper is preferable. Dissolve from four to eight grains of it in one ounce of water, and give a teaspoonful every fifteen minutes. This should be the last remedy. It is certainly of as little avail as tracheotomy, when the blood is already poisoned with carbonic acid.—*Wiener Medizinische Wochenschrift—from Cincinnati Lancet and Observer.*

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Traumatic Tetanus.—Mr. J. Hutchinson and Dr. J. H. Jackson give a tabular statement of twenty-two cases of recovery from traumatic tetanus, adding the following remarks on the management of the disease. The chief objects in view are: To mitigate the force of the local irritation to which the disease is due; to sustain the patient's strength by food, and lastly, by procuring sleep, to allow the nervous system the opportunity of regaining its wasted powers. If the case be seen in the very onset, and if the injured part be a finger or toe, it is desirable at once to amputate, whatever may be the local condition. If the injury has been severe, and the parts have passed into a state in which recovery is doubtful, amputation should be performed at any stage of the disease. The injured part should be poulticed, and the limb above it wrapped in lint which has been soaked in laudanum or chloroform. The patient should be in a room with but one attendant, and the strictest quietude should be insisted on. If the patient has been accustomed to it, he should be allowed to smoke. The bowels ought to be well cleared out by croton oil, or some other efficient purgative. If the skin be very hot, the pulse jerking, and the tongue red and dryish, small doses of calomel may be combined with the narcotic selected. A free allowance of beef-tea, milk, eggs and similar articles of concentrated fluid nourishment should be given, more especially in the later stages of the complaint. As long as the patient is able to take food and to obtain periods of comparative quiet and freedom from pain, the use of anæsthetic inhalations is not desirable. Great advantages may, however, be obtained from them, if he be unable to open the jaw sufficiently to permit of taking food, or if the tetanic spasms are without remission. Ether appears to be decidedly preferable to chloroform. One or other narcotic—opium, Indian hemp, belladonna, worara—should be freely used. There is no very decisive evidence as to the advantage of any one of these over the others. Excepting possibly in the per-acute cases, the free use of quinine appears to be desirable. If given in large doses, it generally reduces the frequency of the pulse, and in some cases a mitigation of the tendency to spasm has attended its influence. The rapid induction of cinchonism is a measure well worthy of a fair trial.—*Med. Times & Gazette.*

Anæsthetics in Midwifery.

BY O. C. GIBBS, M. D.

In the *American Medical Times* for November 30th, Dr. B. Fordyce Barker has an able article upon the use of anæsthetics in midwifery practice. Our readers, doubtless, are well aware of the fact that Dr. Barker is a warm advocate of the use of chloroform in labor. Professors Simpson and Murphy, on the other side of the Atlantic, are, perhaps, no warmer advocates of anæsthetics in midwifery than is Prof. Barker, of New York. We shall try to give a synopsis of his article. Professor Barker says:

"There has not yet been reported, nor is there any reason for believing that a single death has ever occurred in midwifery practice from the use of any anæsthetic agent, where it has been administered by a medical man; and, without being able to give statistical evidence in proof of the assertion, I will express my firm conviction that it has been administered a greater number in times of obstetric than in surgical practice. There are sound and patent physiological reasons why its use should be much less dangerous in the former than in the latter practice.

"1st. The conditions under whieh they are administered are entirely different. In surgery the anæsthetic is used to give relief from an anticipated suffering. In obstetrics it is used to destroy pain already existing. There is no law better known in medicine than that the tolerance of narcotics and anodynes bears a certain relation to the intensity of the pain. One suffering from peritonitis or colic can safely, and with advantage, take a quantity of opium which would be sure to destroy the life of the same individual when in health. For this reason, the risk from such an agent must be very much less in obstetrics than in surgery.

"2d. The emotional condition of the subject, under the two circumstances, differs materially, in the one case tending to weaken nerve force and depress the vital powers, and in the other to secure tolerance of such an agent by stimulating and supporting the same elements. I do not stop here to discuss more fully the influence of the emotions as affecting the vital functions, although it is a subject of great importance, and one well worthy of the careful study of every practical man. For my present purpose, I think that the mere statement of the proposition sufficient to secure its acceptance by every mind. When a subject is about to submit to any painful operation, and an anæsthetic is proposed, there is always more or less dread and apprehension as to the result, to which is often added an anxiety in regard to the effect of the anæsthetic, whether it will really destroy all consciousness of pain; and, if so, whether it will not also destroy life. But in midwifery the overwhelming desire is to be relieved from the recurrence of the pains, and when the effect of the anæsthetic has once been experienced, it is again sought for with the greatest avidity and confidence.

"3d. In midwifery, it is ordinarily unnecessary to carry the anæsthetic to the extent to which it is essential to surgery. In the former, it may frequently be carried to the extent of diminishing or destroying sensation, while consciousness is retained; or, if sleep is induced, it is tranquil not stertorous. But in surgery it is absolutely requisite that the patient be perfectly still, and the anæsthetic must be carried to the extent of complete sopor—the test of which is heavy snoring. Even if it be necessary to carry it to this extent in obstetrical practice, as it may be in some cases of natural labor, and ordinarily when operative measures, either manual or instrumental, are demanded, the two conditions which have been before mentioned as greatly modifying the danger from the anæsthetic still remain. Furthermore, it may be added that the system is prepared by the previous use of the agent in a less degree, because there is now no emotional resistance to the effect of the anæsthetic. For these reasons, as well as from clinical experience, I never feel the least anxiety in administering an anæsthetic in obstetric practice, while I cannot divest myself from more or less apprehension when asked to do this by my surgical friends or by my patients, when dental operations are to be performed. Hence I feel warranted in asserting that the question of anæsthesia in surgery is altogether distinct from anæsthesia in midwifery. In this paper I propose to consider exclusively the latter subject.

"As regards the anæsthetic agent, my remarks will especially refer to chloroform, as this is the agent in which I have had by far the larger experience, and I very much prefer it to any other."

He gives his reasons in detail for this preference, but we have not the space for their recapitulation. In the comparison with ether, he makes the following remark:—

"Now, as chloroform has been used in many thousand cases of midwifery practice, and there is an absence of all proof that in a single instance has death resulted from its use, I think we have in the above reasons good *a priori* ground for believing that it is the more safe of the two agents."

Upon this point, we take pleasure in referring to our *Summary* of several weeks since, in which we expressed a similar idea.

Prof. Barker's experience is large, and the following expression is of importance:—

"I may mention here that I never have in a single instance, in obstetric practice, witnessed the slightest erotic manifestation while a patient has been, either partially or completely, under the influence of an anæsthetic. I allude to this because it has been urged with great effect as an objection against its use."

In regard to the influence of chloroform upon the duration of labor, he admits that in a *minority* of cases it has the effect to prolong it:—

"But," he says, "I have never yet had reason to regret the use of the anæsthetic on this account. But, in a large *majority* of cases, my experience would lead me to the conviction that the use of chloroform shortens labor."

He gives in detail the conditions where it apparently produces this latter result. We have space for only a few short extracts:—

"1st. In all those cases where inefficient uterine action results from loss of sleep and exhaustion from a prolonged first stage, I have had this fact absolutely demonstrated."

He gives cases to illustrate:—

"2d. In rigidity of the os uteri and perineum. In regard to these two points, we find quite a diversity of opinion on the part of obstetricians who are in the habit of using chloroform in midwifery, some asserting that it has a direct influence in effecting relaxation of these tissues, while others affirm that they have not been able to discover that it exerts any influence in this respect. The first condition causes delay in the first stage of labor, and the second, delay in the second. I believe the fact to be that chloroform exerts a most decided influence in overcoming this obstacle in one class of cases. Rigidity of the os results from two entirely different conditions, one of which is speedily relieved by the action of chloroform, while I am not certain that it exerts any special influence on the other."

Unnatural rigidity and resistance of the perineum, he also thinks, results from two quite different conditions. One the chloroform invariably overcomes, the other not.

"3d. The chloroform shortens the duration of labor in all that class where the pains are diminished or suspended by vivid moral impressions or hysteria, or by pains resulting from the coincidence of some malady, either existing antecedent to or appearing during labor.

"On the whole, then, I am obliged to state my conviction that chloroform accelerates labor in a greater number of cases than it retards it."

In cases of version, forceps cases, craniotomy, Cæsarean operation, removal of adherent placenta, etc., he regards chloroform of the first importance.

In regard to the sequences of chloroform inhalation, he makes the following remark:—

"But, as a rule, the general condition of the patient, for the first few days immediately succeeding labor, is beyond all doubt much better where the anæsthetic is used than where it is not. I have never had a patient suffer from headache, delirium, vomiting, and the various other unpleasant sequelæ which have been ascribed to this agent. This may be partly due to the article which I have used. With very few exceptions, I have only used *Duncan* and Flockhart's or Squibb's chloroform."

Prof. Barker concludes with the following propositions:—

"1st. Anæsthetic aid is of the greatest value in the obstetric art, and chloroform is generally the preferable agent for this purpose.

"2d. It exerts no injurious effect, when properly administered, either upon the health of the mother or the child.

"3d. It is perfectly justifiable to use chloroform in natural labor, solely for he purpose of relieving pain.

"4th. It is especially useful in calming the extreme agitation and mental excitement which labor often produces in very nervous women.

"5th. It should be administered in those cases of natural labor where the progress is suspended or much retarded by the pain occasioned by previous diseases, or such as may supervene during labor, and in those cases where the irregular and partial contractions occasion intense and almost constant pain, but have no effect to advance the labor.

"6th. It is of great service in spasmodic contraction and rigidity of the cervix uteri, in tetanic rigidity of perineum, in certain forms of puerperal convulsions, and in the various obstetrical operations."

We have occupied unusual space with Prof. Barker's article; but the importance of the subject, and the impossibility of doing justice to Dr. Barker's views in less space, must be our apology.—*Medical and Surgical Reporter.*

Influence of Lactic Acid upon the Endocardium and in the production of Rheumatism.

VIRCHOW notices the experiments of Dr. Richardson in which he seeks to prove directly what Prout had originally supposed, which Williams and Todd had also conjectured—that the accumulation of lactic acid in the body was the cause of rheumatism. He also alluded to the observations of Schenlein, of Joseph Meyer, and of an anonymous writer, "A. W." on the same subject. He remarks that none of the German observers, in their experiments, had found that rheumatoid affections of the limbs had been produced, and Virchow suggests that possibly in certain cases in which it was supposed that *such had* been artificially produced, the appearances were the result of injury to the joints occasioned in the necessary operation of binding the animal's limbs.

It was, however, quite different with regard to the influence of lactic acid upon the endocardium. On this point the observations of Richardson had been abundantly confirmed by late experimenters. In eight cases in which Rauch had injected lactic acid into the jugular and abdominal veins, changes in the endocardium, and gelatinous thickening of the valves, were produced; and even eight hours after injection into the jugular veins these effects were found. Rauch, who had minutely examined the thickened and swollen granular parts of the valves, takes exception to the statement of Richardson, that it was the result of an exudation. He found, as Virchow had often previously found in the human subject, that it consisted of a soft mucus-like tissue, with an increase and growth of the connective-tissue corpuscles, which at a later period undergo fatty changes, and that an epithelium existed. He concluded that the influence of the lactic acid was exercised not upon the free surface, and this especially as the right side of the heart was not much affected.

Dr. Moller looks upon the swelling and redness found at the edges of the valves as a post-mortem phenomenon, and says they do not occur in animals examined directly after death. Both Rauch and Moller found in some cases a want of rythm in the heart's movements and systolic bruits. Moller considered the murmur to be anæmic, whilst Rauch attributed them to an affection of the valves.

Dr. G. Reyher, encouraged by Virchow, was led to undertake a series of examinations of the hearts of dogs which were killed without having had lactic acid injected into them. These dogs were of every age up to nineteen years old, were killed in the speediest possible way by prussic acid or the blowing of air into the jugular veins, and their hearts were examined as quickly as could be. On opening the very first heart of an apparently healthy dog, the author found that the very same anatomical changes in the heart's valves existed as Rauch and Richardson found after their injection of lactic acid. Thirty-two dogs were sacrificed in all, and similar changes, in a greater or less degree, and evidently of various dates, were universally found, except in fœtal hearts. Moreover, in one dog, in which the writer had during life injected a solution of lactic acid (according to Richardson's directions) into the peritoneal cavity, and which died twenty hours after, on examination after death the results of a *chronic* endocarditis were found, but nothing like the remains of any acute endocarditis. The various conditions of the valves and their appendages, as displayed after death in these dogs, are minutely given, and their development, as it were, traced from the simplest up to the most decided form of alteration. Moreover, the microscopical characters of the altered valves and new formations are elaborately given in detail, sections as well of the fresh structures as of prepared parts having been carefully examined. For these general and minute descriptions we have not room in this place. In conclusion, from the observations of the author, the following are interesting:

1 That dogs, and probably also many other mammalia, are not so free from pathological changes in the heart as is supposed, and consequently that great caution is necessary in drawing inferences from such experiments upon these animals. (Dr. Albaum also found in the hearts of young horses, cats, and rabbits, similar changes to those found by the author in the dog.)

2. That in all the thirty-two apparently healthy dogs whose hearts were examined, the changes observed were "identical" with those described by Richardson and Rauch as the result of lactic acid injection, and called by the latter "parenchymatous endocarditis."

3. As Richardson and Rauch have not sufficiently avoided sources of error (owing to neglect of the examination of healthy dogs), their investigations are of no value in support of the supposed origin of endocarditis from the injection of lactic acid into the peritoneal cavity or jugular veins.

4. Consequently, that endocarditis arises from an accumulation of lactic acid in the blood remains *un*-proven —*Brit. and For. Med. Chir. Rev., from Virchow's Archiv.*

On Certain of the Early Symptoms of the Eruptive Fevers.

BY DR. SEE.

To say that a child is about to have an eruptive fever, and to announce beforehand that the disease will be measles, scarlatina, or small-pox, is a point of great interest, if not for the child, at least for the practitioner. It is the surest means of acquiring, from the first, the confidence of the family, for there is no doubt that people think more of the accuracy of the diagnosis and prognosis of a physician, than of all the care and intelligence he may have shown in the treatment of the case. "Let us see, then," said Dr. See, "what are the prodromata of the eruptive fevers of which the observation is important."

A character common to the eruptive fevers is the suddenness of invasion, accompanied by a peculiar state of precordial anxiety, as pointed out by Borsieri. In typhoid fever the invasion is preceded by a lengthened period of discomfort; the child has lost its gayety, and is fatigued without cause; this state lasts for several days.

Scarlatina is sometimes ushered in by symptoms which simulate cholera. Six months ago Dr. See was sent for to see the grandchild of a physician, who, at two o'clock in the afternoon, had been seized with choleraic symptoms. Dr. See could not see the child till half-past five o'clock. By this time, however, the eruption of scarlatina was manifest. Had the physician arrived sooner, he would not have seen the eruption, but he would have examined the throat, and would infallibly have found the angina which always precedes and accompanies scarlatina.

Measles does not give rise to vomiting, which, however, is a premonitory symptom of scarlet fever and small-pox. If then, there is vomiting, and no affection of the throat, examine the arm. If the vaccination cicatrix be well marked, there is every chance that the small-pox will be mild. One of the constant precursors of small-pox, and on which Professor Chomel always laid great stress at his clinique, is pain in the loins. Also examine the back, for it is there that the first spots of small-pox make their appearance. In small-pox, also, the fever is continuous. In measles the premonitory fever is often remittent, or even intermittent. You have seen a child in the evening, feverish; next morning he seems lively, you are told that he has taken food, and you go away fancying that the little attack has passed off; then the fever returns, and soon other symptoms announce that the child is about to have measles; these other signs are the lachrymo-nasal catarrh, which appears about the third day. It may be said that influenza presents the same symptoms No doubt, the resemblance is pretty close. There is remittent fever, subject to exacerbations, and towards the third day the nose and eyes are affected. But to remove all doubts, it will be sufficient to auscultate the chest. If the disease is influenza, you will find already (by the third day) the signs of bronchitis; whilst if you have to do with measles, the results of the examination will be negative. In fact, it is on the fourth day that a child who has had a remittent fever, followed by a lachrymo-nasal catarrh, is seized with the characteristic cough. This cough, with its muffled sound, sometimes suggests to the parents the idea of croup, or hooping-cough. It is neither one nor the other; it does not come on in paroxysms. As in influenza, it consists of separate coughs closely following one another, and which continue till the eruption makes its appearance.

One word on a complication which may render the diagnosis of certain eruptive fevers obscure. The scarlatina eruption sometimes appears within the first six hours, rarely later than twenty-four; but it sometimes happens that small-pox is preceded by a scarlatiniform eruption, which has been especially described in England. This rash is sometimes limited to the belly. But even here there is no room for doubt. The rash does not appear till the second day, and if you examine your patient minutely from head to foot, you will find, especially on the back, some spots of small-pox. In fact, when the rash is present, the small-pox eruption has already commenced. Twice, a distinguished physician of Paris compromised his reputation by announcing scarlatina, while Chomel found, by examining the back, that he had to do with cases of small-pox.—*Edinburgh Med. Journ.*, Dec. 1861, from *Journ. de Med. et de Chirurg. Prat.*, Oct. 1861.

Notes of a Clinical Lecture.

BY MR. PAGET, SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

In speaking of certain malformations of the teeth in congenital Syphilis, Mr. Paget said there were two patients in the Hospital whose teeth showed the peculiar malformation of the teeth described by Mr. Hutchinson as occurring in inherited syphilis. One of them, a girl aged 17 or 18, had had repeated attacks of interstitial keratitis, a form of keratitis which occurs exclusively in congenital syphilis, not as a result of acquired syphilis. This patient had been in the Hospital before for an attack of keratitis. This was cured. She had recently been re-admitted for contraction of the muscles of the knee. Another patient, a girl, was admitted for a relapse of keratitis. She had been subject to it from the age of 7. She had also a group of ulcers below the patella, which in an older person would, no doubt, be called tertiary syphilitic ulcers, and was subject to repeated attacks of inflammation about the joints. She had never had primary nor secondary syphilis. Mr. Paget, therefore, suspected that she had inherited a syphilitic taint from her parents. On looking at the teeth the central upper incisors were found to be notched and narrowed at their cutting edges.

This malformation of the teeth was not to be found in all cases of congenital syphilis; but when present it might, Mr. Paget believed, be considered positively certain that the patient was the subject of congenital syphilis. He said that he knew nothing more certain in Medical practice. It was, he said, one of the most remarkable contributions to Medical science for many years, and was as well settled as any fact in Medical science, and we may be as sure as we are of anything, that persons with such teeth are the offspring of syphilitic parents.

The temporary teeth, except that they are quickly cut and quickly lost, are not characteristic. Nothing can be drawn from them. It is to the central upper incisors of the permanent set that we must look for decisive characters. These teeth are smaller in proportion to the size of the jaw, and rather narrow, and also become gradually narrower towards their cutting edge. But the most remarkable thing is the crescent or half-moon notch in the cutting edge of the teeth. The borders of the notch are not broken, but singularly rounded off. The teeth are distinct, having wide interspaces. This notching of the teeth is rarely seen after thirty, as the edges of the notch are worn away, so that the edges become worn straight. The other teeth were often affected, but not by themselves enough to render diagnosis at all certain. Mr. Paget then spoke of certain defects in teeth, which were often taken as characteristic, which had, however, none of the peculiar characters above described. They were like the typical teeth of syphilis in this only, that they were not normal.

In reference to treatment, the value of these tests of teeth was well shown. Thus, in a girl recently in Sitwell, for lupus of the nose and lip, except for the teeth there was nothing to suggest the idea of syphilitic taint. It looked just like a case in which arsenic would be prescribed. The teeth being, however, found to be characteristic, an anti-syphilitic treatment was adopted, and the girl was well in six weeks; a result, Mr. Paget said, quite impossible if any other treatment had been adopted.

As to the cause of the peculiarity of the teeth, Mr. Paget said there are certain correlations of disease parallel with the correlations of growth which Dr. Darwin has illustrated, and, like them, usually quite inexplicable. Such are also the relations between certain diseases of the renal capsules and bronzing of the skin with dark pigment. It may be that they are related through some mutual influence on the blood, and in the method of complemental nutrition; but, at present, all that seems certain is that with some morbid conditions of the blood we find peculiarities of shape in certain organs or in the products of disease, as eruptive pigmentary deposits, ulcers, etc.—*Medical and Surgical Practice.*

REMARKABLE ILLUSTRATION OF INSTINCT.—The surprising faculty of vultures in discovering carrion has been a subject of much speculations as to whether it be dependent on their power of sight or of scent. It is not, however, more mysterious than the unerring certainty and rapidity with which some of the minor animals, and more especially insects, in warm climates congregate around the offal on which they feed. Circumstanced as they are, they must be guided towards their object mainly, if not exclusively, by the sense of smell; but that which excites astonishment is the small degree of odour which seems to suffice for the purpose, the subtlety and rapidity with which it traverses and impregnates the air, and the keen and quick perception with which it is taken up by the organs of those creatures. The instance of the scavenger beetles has been already alluded to; the promptitude with which they discern the existence of matter suited to their purposes, and the speed with which they hurry to it from all directions, often from distances as extraordinary, proportionably, as those traversed by the eye of the vulture. In the instance of the dying elephant referred to above, life was barely extinct when the flies, of which not one was visible but a moment before, arrived in clouds, and blackened the body by their multitude; scarcely an instant was allowed to elapse for the commencement of decomposition; no odour of putrefaction could be discerned by us who stood close by; yet some peculiar smell of mortality, simultaneously with parting breath, must have summoned them to the feast. Ants exhibit an instinct equally surprising. I have sometimes covered up a particle of refined sugar with paper on the centre of a polished table, and counted the number of minutes which elapse before it was fastened on by the small black ants of Ceylon, and a line formed to lower it safely to the floor. Here was a substance which to our apprehension at least, is altogether inodorus, and yet the quick sense of smell must have been the only conductor of the ants. It has been observed of those fishes which travel overland on the evaporation of the ponds in which they live, that that they invariably march in the direction of the nearest water; and even when captured, and placed on the floor of a room, their efforts to escape are always made towards the same point. Is the sense of smell sufficient to account for this display of instinct in them? or is it aided by special organs in the case of the others?—*Sir J. E. Tennent's Ceylon.*

Notes of Cases in Surgery.

BY FREDERIC C. SKEY, ESQ., F. R. S.

THE leisure hours preceding the commencement of the ensuing medical session enable me to recall to my recollection some of the more remarkable examples, whether of disease or of injury, that have fallen under my charge during the past year in the wards of St. Bartholomew's Hospital. Of these cases I propose to give a general sketch, in the hope that they may prove not unacceptable to some of my professional brethren who, by the exigencies of practice or the remoteness of their locality, are deprived of the advantage of an occasional visit to the wards of an hospital.

Fractured Bone.—I commence the task I have assigned myself by referring to the cases of fractured bone, of which the supply to my own wards has been amply sufficient to meet the wants of the most earnest students of his profession. Three hundred and twenty-one cases of *fracture* in general—of which nineteen were compound—have been admitted in the thirteen weeks in which I have been on duty. The single week at Christmas last produced no less than forty-seven cases. Three cases of compound fracture appeared to me to demand amputation. In several others the injury was great: some to muscles, while in some the bone was greatly comminuted. In four or five, hæmorrhage followed either primarily or secondarily. I quote one case of some interest, arising from the great extent of the injury, which was far greater than would twenty years since have warranted the decision arrived at:

A man, aged forty-six, was admitted in December last with extensive laceration of muscles and integuments of the lower end of the right forearm and comminuted fracture of both bones, caused by machinery. The question of amputation was one of difficulty, arising from the extent and complication of the injury. I confess I was influenced by the fact that the man was the father of a large family, and that the loss of his right arm would be fatal to his occupation. He was a healthy man, of abstemious habits; and, moreover, I entertain a strong impression that the amputation of a limb—certainly of a forearm—may be undertaken with equal, if not greater, safety at the expiration of a few days as at the date of the accident. We have yet something to learn on the subject of "primary amputation." The forearm was "put up." Slight hæmorrhage from the radial artery occurred on the seventh day, and profuse on the ninth, when the artery was tied. The man was greatly reduced by the loss of blood, his vital powers being sustained for several days by brandy, in half-ounce doses, frequently repeated; the quantity determined by the pulse. The man was discharged in the twelfth week from the date of his admission, with a limb sufficiently restored to its natural functions for the resumption of his pursuits as a printer.

In weighing the question of amputation of a limb for serious injuries, there is something beyond the amount of damage done to be taken into our calculation of the probable future. I allude to the subject of constitutional health, whether primary, or determined by the habits or occupation of the individual. These are questions not readily determined on early inquiry, and some days may elapse before the real power of the individual to avert or contend against disease is ascertained by the surgeon. The vital powers may suddenly fail at the time they are most required. I lost two cases of compound fracture of the leg, in which the extent of injury was far less in degree than several others which ultimately recovered. It may be said, I should have done well had I at once amputated these limbs. The result proving fatal, doubtless the operation of immediate amputation would have presented an alternative, possibly a more favorable one, but this *ex post facto* reasoning is of little value when placed by the side of general principles, which proclaim aloud the paramount duty of the surgeon to save, and not to destroy.

Simple fractures of the leg I have treated commonly by means of the application of a large pillow whenever the displacement has been moderate. When great, or the fractures very oblique, with a tendency to retraction, I have resorted to the cradle with side splints, a positive objection to which is the liability to protracted ulcerations of the heel.

Of fractures of the leg of the more ordinary kind, some 35 cases have recovered thoroughly well by the application of the pillow, which is an efficient and by far the most comfortable agent I know in the treatment of this injury, a well-made flock pillow will answer this purpose well. It should be of length sufficient to reach above the knee, and extend some inches below the foot. When bound on to the leg by means of four or five straps with buckles, which are drawn very tight, the pressure, as is well known, is diffused over the entire surface of the leg, and it is unproductive of pain or of such an amount of discomfort as to prevent sleep on the first night following its application.

Strangulated Hernia.—The cases of strangulated hernia have presented in about the average number in the year, and in their arrival they have observed the same irregularity which has so frequently excited observation from others—viz: to their appearing in groups, of two or three within so many days. I do not know that I have ever operated on two cases of hernia identical in character. Each case has its own peculiarities, presenting features distinct from any other. Where such features are so peculiar as to involve the question of treatment, or to determine the course of operation required for it, the examples claim attention as cases of more than usual interest, and of such I shall refer to three.

The first is that of an old woman, aged eighty-eight, admitted in May last. She was the subject of double hernia, femoral on the right, and inguinal on the left side. The right presented a hard and painless swelling, which, according to the old lady's positive declaration, had existed in its present condition for many years. It gave her neither pain nor discomfort. The left swelling was large, soft, and painful. Examination by the hand was invariably followed by sickness and by shooting pain into the abdomen. In fact, she referred her own symptoms exclusively to the left side, declaring as she pressed her hand on the right swelling that it had nothing to do with her present malady. I thought I succeeded in returning a portion of the mass into the abdomen; but the symptoms continued, and I decided to operate. The woman being placed under the influence of chloroform, with the concurrence of my colleagues, Messrs. Lawrence, Stanley, and Savory, I exposed the mass on the left side. The sac contained omentum only, and a part of which was readily returned through an opening which admitted a finger without effort. The right swelling was left untouched; this decision being arrived at on the positive assurance again and again given by the patient that she had never suffered a moment's pain or inconvenience from the swelling in the right groin, and also from the probability that intestine had been returned, before the operation. The symptoms, however, continued unrelieved; vomiting and constipation were as urgent as before, although her constitutional powers appeared little reduced by the previous discipline. On the following day I operated on the hard and insensible swelling in the right groin. On opening the sac, a quantity of venous blood escaped. A large knuckle of small intestine formed the mass of the swelling, which was highly congested with blood, and was shut off from the abdomen by a very slight stricture, which was divided with some difficulty. The peculiar features in this case are—first, the double hernia; secondly, the peculiar sympathy manifested by the stomach, as the dominant organ of the abdomen, with the tumor on the left side where there existed a strangulation; and thirdly, the entire absence of physical pain connected with the femoral hernia of the right side. Although the sickness and vomiting were no doubt maintained by the condition of the strictured intestine of the right side, yet the immediate relationship between the stomach and the tumour of the left side was so striking as to attract the observation of my colleagues as well as myself. This fact, the entire absence of local pain on the right side, and the woman's repeated request that we should "leave the right side alone," decided the question of the operation to be selected. At the time, the evidence appeared good, so far as it went; but it is quite obvious it was unsound at bottom, and led to a false diagnosis.

The second case was that of a man, aged thirty-eight, admitted in July last. He was a man mentally characterized by a low order of intellect, and incapable of a connected statement of his symptoms. It was extracted from him, with some difficulty, that he first became the subjest of hernia twelve months prior; that the hernia returned without effort on his part on lying down; that he had a second attack six weeks previously, which also yielded to simple pressure and position; and that his present condition had existed consequent on a third attack of three or four days. He was visited by a medical man, who administered a full dose of calomel-and-colocynth, and leeched the swelling freely, but without apparent benefit. On inquiry, we ascertained that he had been the subject of a discharge from the urethra, and had passed his urine with difficulty. The course of a catheter was obstructed at two inches from the orifice of the urethra. The local condition was as follows: Right inguinal canal much swollen; left slightly so; scrotum very largely but uniformly distended with fluid; penis involved in the general swelling; perinæum also greatly enlarged; constipation of four days, but no abdominal pain; violent sickness of greenish matter; pulse intermittent. Thus were presented, with tolerable distinctness, groups of symptoms of two diseases bearing no relation to each other. The aspect was that of extravasation of the urine; the symptoms of those of strangulated intestine. It is true that the swelling of the right groin belonged to the *canal*, and not to the *subcutaneous tissues*; and this fact formed an important element in the diagnosis. On the one hand we had obstinate constipation, the evidence of previous rupture, distension of the inguinal canal, and violent and scarcely remitting sickness; on the other, stricture, impermeable to a small catheter, with urethral discharge and local appearance which we are far more accustomed to identify with extravasation of urine than with hernia. The *history* was that of hernia; the local *aspect* that of extravasation. There could be little doubt of the presence of hernia, whereas that of extravasation was more uncertain, and of the two diseases less critical. I operated for hernia. The sac was in a condition of large and general suppuration, the effects of which had involved all the surrounding parts, scrotum, penis, and perinæum. The intestine was marked by numerous gangrenons patches. I selected one of the smaller of these, and punctured it with a trocar, when a large quantity of purulent fluid escaped. I divided a tight stricture, tied up the aperture with a fine silk thread, and returned the intestine into the abdomen.

A woman aged thirty-nine, three months advanced in pregnancy, admitted in May last, fifteen hours previously was seized with sudden pain and a swelling in the right groin, consequent on an attempt to support a child at arm's length; vomiting quickly followed. The right groin, on admission, was the seat of a small hard knot, on which no impression could be made by the hand. I operated within two hours after her arrival, and on opening the sac nearly two pints of watery fluid, as near as we could calculate, escaped from the peritoneal cavity. The intestine, which was gorged, but not unhealthy, was returned into the abdomen; vomiting ceased. The main feature in this woman's case consisted in the discharge of an immense quantity of fluid, of a yellow color, and containing flocculi, through the wound from the abdominal cavity. The bowels acted freely on the third day. On the fifth she died. No post-mortem examination was permitted. It was not, however, very essential to the explanation of the cause of death.

One word on the subject of the division of the sac in cases of hernia. The operation of non-division has, I confess, disappointed me; and I am disposed to concur with many other authorities in the belief that the advocates of the operation are not borne out in their estimate of its supposed advantages; such, at least is the result of my own personal and necessarily limited experience in the practice of St Bartholomew's Hospital. The operation of strangulated hernia, although the theory is obvious enough, and the object to be obtained clearly understood, is often an operation of considerable difficulty and of anxiety to the surgeon operating; and in a large number of cases a young surgeon is not indisposed to suspend for the moment his "pride of place," and to avail himself of the advice and co-operation even of his assistant, certainly of his seniors, should such be present. I consider the difficulty of the operation, as a rule, considerably increased by the attempt to divide the stricture from without inwards; or, in other words, without opening the sac which surrounds the intestines.

Dislocation.—Of thirty-five cases of dislocation, a few only have fallen under my own immediate charge. I may allude to one example of dislocation of the femur occurring in the person of a stout boy of sixteen. The head of the bone was thrown backwards on the dorsum acetabuli, and it resisted the combined force of four persons engaged in extending the limb while the boy was under the influence of chloroform. On remitting the extension, the bone was reduced by bending the thigh forwards on the pelvis and drawing it outwards. Of seventeen cases of dislocation of the humerus, in one only was the head of the bone thrown on the dorsum scapulæ. The above list includes a case of dislocation of the coccyx, some particulars of which may be worthy of notice. The subject was eminently sensitive and hysterical young woman, aged twenty, who sustained the injury by a fall in the street three weeks prior to her admission into the hospital. At the date of the accident she was far advanced in pregnancy, and she miscarried in the interval. Examination detected displacement of the bone, which was thrown forwards at a right angle with the sacrum, the point projecting against the rectum. Tolerably firm pressure made through the bowel readily replaced it, but it returned to its abnormal position immediately on the remission of the pressure.

My first intention was to operate on the bone from within, and with this view I designed a metal spring, as thin in the neck as was compatible with strength, to be introduced into the rectum; but the difficulty of fixing it to the pelvis, and of employing the exact force requisite, was insuperable; besides which, I had no experience as to the capability of the bowel to bear the required pressure for many days, and probably weeks. I then determined on the experiment of direct traction of the bone, and, having cut down upon it, passed a thin silver wire around at about three-quarters of an inch from its extremity. The wire broke, and I replaced it with a large silk thread, which was drawn tightly round the point of a broad wooden splint adjusted to the woman's back. The experiment, however, was not very successful; symptoms of very active hysteria manifested themselves, and she declared the pain to be insupportable. Some amount of local irritation certainly attended the progress of the case, with local redness and moderate suppuration, but not to an extent commensurate with her suffering. She wore the instrument twenty days, during the whole of which she declared the pain very severe. For a few days she appeared relieved; but the bone returned to its abnormal relation to the sacrum. Subsequently she became eminently hysterical, and even maniacal, and I was compelled to remove her from the ward. From this state she recovered; her condition gradually improved, and she left the hospital relieved from her symptoms, both local and constitutional.

My experience of the past year in reference to dislocation at and below the ankle joint (which students yet recognize under the curious term, "dislocation of the *tibia*," and occasionally of the *leg*) confirms my former opinion that the foot may be dislocated *in any degree* and in any direction; but more especially does this remark apply to dislocation of the foot, both backwards and forwards.

Burns.—In reference to the subject of burns, I have always been an advocate for the stimulating principle of treatment first suggested by Dr Kentish. That principle, to my observation apparently so sound, has been repudiated of late years by many eminent surgeons The thoroughly negative action of Carron oil and lime water has been substituted for it, from which, I confess, I have never seen a corresponding benefit obtained. It is notorious that the intense pain caused by a drop of hot sealing-wax, or other similar agent, on the skin is much mitigated by the temporary application of great heat. The pain subsides in the course of a few moments by holding the affected part to the fire. The explanation is not perhaps very obvious, but the fact remains.

In July last five men were admitted into St. Bartholomew's Hospital, with severe burns on the face, head, chest and arms. One died immediately after his arrival. My house surgeon, Mr. Richard Smith, was at the time ill, and the immediate charge of the cases devolved on a colleague, who applied the oil and lime water to the arms and hands of each of the surviving men. At that moment Mr. Smith arrived, and completed the dressing by the application of a solution of nitrate of silver (ten or twelve grains to the ounce of water) to the face, neck, etc. I did not see these men until the following morning, when all four complained of severe burning pain in the arms and hands, but stated they were free from pain in the other affected parts. The stimulating solution above mentioned was applied to the upper extremities, and the relief at the expiration of about a quarter of an hour was complete. In two of the cases some pain returned on the third day, and relief was obtained by the same means. My directions are simply these: In the case of infants or young children, wash the affected surface, if not very extensive, with a solution of nitrate of silver, in strength six or eight grains to the ounce, and immediately cover up the part with a thick mass of cotton wool; in the case of an adult, from twelve to fifteen grains, unless the surface requiring the application be very large. Should pain return, the solution may be advantageously resorted to at an early stage of the treatment.

Varix.—Some twenty-five cases of varicose veins of the leg have been treated in all my wards, and all by the application of the Vienna paste, composed of two-fifths potassa fusa, and three-fifths quick lime. The results have not shaken my confidence in the efficacy of the treatment. The eschars can scarcely be made too small, provided the material of which it is composed be thoroughly good and recently mixed. The numbers vary according to the extent of the disease. From twelve to eighteen will suffice usually for a limb somewhat largely affected. As regards the period of time required for the after treatment, it is of course of no great moment whether the number of the eschars be five or twenty-five, as they all progress towards recovery at the same time. I have never yet seen any evil consequence, either local or constitutional, arise from the application of Vienna paste to the largest and most prominent vein, however thin may be the textures over it. The cure is generally, but not invariably, permanent.

Housemaid's Bursæ.—I have purposely admitted a large number of cases of what are termed "housemaid's bursæ," and they may be supposed to have presented themselves in every variety of form, character and stage of progress. I am not sanguine enough to entertain the hope of shaking the confidence of many surgeons in the efficacy of blisters and tincture of iodine, which may be applied and reapplied for months without the smallest impression on the disease, so far as I have witnessed their effects. Indeed, with respect to the latter agent, I regret to say that I know of no chemical or therapeutical agent in such general resort as a local remedy in disease which is so commonly inoperative for good; and in these bursal diseases it appears to me to be especially so. If a full-sized thread be passed through the centre of the swelling, be it large and hard, giving the sensation of a solid mass, but in the centre of which is always found a small cavity or fissure; or be it soft, and containing fluid, whether large or small, suppuration in the course of from two to five or six days will inevitably follow. The thread may then be removed. The disease is converted into an abscess, and may be treated as an abscess. I may assert, without exaggeration, that I have cured from one to two hundred cases on this simple principle. No other caution is necessary beyond the removal of the thread when the orifices through which it has passed indicate the inflammatory action incidental to its presence.

The same agent, and on the same principle, is equally applicable to *ranula*. Indeed it is quite remarkable with what rapidity this disease recedes under the action of the thread, whether the cyst be of average or of the largest size. Of the latter I have reported some, and treated several of such magnitude as to require the lower end of the thread to be brought out in the neck at some distance below the base of the jaw.

Wounds into Joints.—A few words on the subject of wound into joints. A boy, aged twelve, was admitted in July last, with a small wound on the inner side of his knee-joint. It was difficult to ascrtain with accuracy the time or the nature of the cause, which, however, had occurred several days prior to his admission. Some four or five days afterwards, Mr. Smith abstracted a pin from the wound, which had obviously penetrated the joint, from which synovial fluid now escaped for several days. The fluid became purulent and copious; the joint hot, swollen and extremely painful. Matter collected under the skin in the neighborhood of the original wound, which required a second puncture. Large flabby granulations, almost invariably accompanying wounds into joints, formed around the two orifices, and existed for a month. The granulations at length subsided, the wounds healed, and the joint regained its normal size and appearance. Can this boy recover the former mobility of the joint, or is anchylosis inevitable? I believe it quite possible that the functions of the joint may be restored. I have had two cases of wounds into the knee-joint, in which discharge of synovia of many days' duration was followed by the free escape of pus from the cavity of the joint, continuing for a fortnight in one case, and ten days in the other; and in both cases the joint entirely recovered its functions. Of the restoration of the joint in the above case, however, I am not sanguine, from the protracted nature of the disease, the progress of which occupied a term of many weeks. The subject has not been investigated, as far as I know, but it is not devoid of surgical interest

Breaking-down of the Joints.—On the subject of breaking-down of joints fixed by deposit around them from rheumatic inflammation, I fear I have been less successful in my treatment than other members of the profession, judging from the published record of cases. But of the half dozen that have unfortunately fallen under my charge, in not one have I succeeded in restoring the functions of the joint, all having returned to their previous state of "spurious anchylosis."

Foreign Body in Pharynx.—In June last I was summoned to a curious accident. A young woman was admitted wearing a set of artificial teeth, consisting, if I recollect right, (for I quote from memory) of four connected by a plate of metal, from each extremity of which descended hooked processes to fix it on the gum. The plate became detached, and she swallowed it, and it fixed across the pharynx about an inch from its termination in the œsophagus. The accident occurred in South Wales; and, having made one unsuccessful attempt to remove the foreign body, the medical attendant brought her to London. The accident had happened twenty hours when I saw her. The woman was in much distress, not from obstruction in the pharynx merely, but also from pressure on the larynx. The finger, passed with a considerable effort, reached the object, but only touched it with difficulty. From Fergusson's ample collection of forceps, of every form, size and variety, I succeeded in selecting a pair. After two or three futile efforts, having fairly grasped the foreign body, I abstracted it, not without the application of great force, so tightly was it held by the pharyngeal muscles. I do not pretend to any skill in the accomplishment of this not very difficult task, which owes its success to the advantage afforded by an hospital in selecting out of a large number the appropriate instrument for the purpose required. I kept the woman in the hospital till the following day, during which interval she exhibited no bad symptoms, beyond slight bleeding and soreness in taking food.—*Lancet.*

ORIGINAL PAPERS.

Occlusion of the Os Uteri.

BY H. H. TOLAND, M. D.

One of the most formidable of the mechanical obstacles to delivery is the complete obliteration of the external orifice or neck of the Uterus. Honoré thinks that agglutination of that portion of the organ is much more frequent than is generally supposed, and is not discovered in consequence of nature overcoming the difficulty before much inconvenience results. It is produced by inflammation of the investing membrane of the canal, by which its surfaces are brought in contact and unite by the formation of a pseudo membranous or fibrous tissue, of greater or less resistance. If the orifice be merely agglutinated, the obstruction generally yields without much difficulty. It may, however, be so firm as to resist the most powerful uterine action, and require a surgical operation for its removal. In 1833, M. Coffe met with a case upon which he was compelled to operate, not only after consulting the ablest accoucheurs of Paris, but also, after waiting sufficiently long for nature to overcome the resistance, if that had been possible. Other accoucheurs, equally eminent, both in Europe and America, have been compelled to resort to the same method of treatment.

Mrs. C——, aged 26 years, the mother of two children, and of good constitution, consulted me in April, 1861. for a vaginal discharge, accompanied with pain in the back and pelvic region, which followed her second confinement, and most probably resulted from resuming the duties of her house too soon after her delivery.

Upon making an examination with the speculum, the os uteri was found to be enlarged and considerably ulcerated.

By the employment of the usual remedies in such cases, considerable relief was afforded, but the treatment was not continued until the ulcer had entirely cicatrized. I lost sight of the patient from that time, until 8 o'clock, on the 20th of March, 1862, when I visited her for the purpose of attending her in her third confinement.

As she had previously suffered but little, and having been in pain for several hours, I made an examination, and found the external organs both dry and contracted, and the os uteri completely closed. The pains having continued until twelve o'clock at night, without any perceptible change, half a gr. of morphia was administered, and relief afforded until the afternoon of the following day, when they returned as violently as before. I did not visit her until 10 o'clock at night, when I was still unable to detect the os uteri; the parts being in the same condition as in the previous examination, and finding that no progress was made during several hours, morphia was again administered, with a similar result. The patient was directed to remain in bed, and to take a purgative enema daily. Several days elapsed before I was convinced that the os uteri was firmly and completely closed, and that an operation would most probably be necessary. I determined not to interfere, however, so long as the patient could be rendered comfortable by the use of opiates, unless the vaginal secretion, which usually accompanies labor, should appear.

At ten o'clock, on the evening of the 10th of April, I found her in violent pain, with a profuse vaginal secretion, and considerable relaxation of the external organs.

In addition to a small pocket-case of instruments, I had provided myself with a pair of strong-curved scissors, which were all the instruments I found necessary. The action of the abdominal muscles very soon forced the uterus down, until it rested against the perineum. In the centre of the presenting part, I was confident that an elevated ring, about the natural size of the undilated os, with a slight depression in the centre, could be distinctly felt, although it appeared to be firm and resisting. The pains soon became so violent that I was apprehensive of a rupture of the parietes of the organ, if the resistance presented by the occluded os was not speedily removed.

Having placed the extremity of the forefinger of the left hand upon the point where I thought the opening should exist, it was divided with the point of a scalpel, as well as the membrane enveloping the child. After the escape of the liquor amnii, one blade of the scissors, previously described, was passed into the uterus, and the attenuated neck divided bilaterally, at least two inches on each side, which gave no pain, and was soon succeeded by the expulsion of a full grown and vigorous child. The placenta speedily followed, and she recovered without experiencing a single unpleasant symptom. So long as the lochial discharge continued, I did not consider it necessary to make an examination, but when that ceased, the mouth of the uterus was found open, healthy, and the wounds cicatrized. Only a slight depression was perceptible on each side, to indicate the point where they existed. A small gum elastic bougie passed readily into the cavity of the organ, which I repeated every week until no evidence existed of the presence of any irritation or inflammation, by which the same difficulty could be reproduced.

She assigned pregnancy as the cause of the discontinuance of the treatment in 1861, believing that it might be injurious to the child, and consequently should be abandoned. The ulceration that existed when pregnancy occurred, accounts for the adhesion, as well as the obstinacy of the resistance.

Remarks on Syphilis.

TRANSLATED BY THE EDITOR.

THE subject of syphilis is at the present moment one of the most debateable topics of medical science; and, as an important change is evidently taking place in the views of the profession in regard to it, we think we cannot better occupy our pages than by giving a translation of a very interesting résumé of the subject, which is appearing in the *Gazette Hebdomadaire* of Paris. We shall not attempt to condense, as we find that food too much concentrated is not so easily digested.

As our readers are aware, there are at present two distinct doctrines taught in the schools: one which has had the support of Ricord, and which his writings on venereal diseases have tended to popularize, is, that every chancre that is inoculable is capable of giving rise to constitutional syphilis; and the other that it is only the indurated chancre that is ever followed by constitutional disease, whilst the soft chancre, although contagious and capable of being inoculated, is merely a local disease, and never infects the system. Those who adopt this latter view admit, therefore, the existence of two distinct forms of chancre; in fact, of two distinct diseases which have been confounded under the name of syphilis, but which are as separable as impetigo and small-pox.

"The older authors who first described syphilis—Vigo, Fallopius, Botal, &c.—insisted on an important element—induration. The hard ulcer—the indurated chancre, according to these close observers, preceded constitutional syphilis.

J L. Petit, an author who wrote in the sixteenth century, was fully aware of the consequence of induration, as is evident from the following passage in his work on Diseases of the Bones:

"The chancre, even when properly treated, is followed almost always by constitutional symptoms, particularly if it is *indurated*, or if there remains any *hardness* after the ulcer has healed." This celebrated surgeon had observed too closely, not to open the eyes of his cotemporaries and those who followed him, to the truth. Hunter described the Hunterian chancre, and Babbington, Carmichael, and S. Cooper, admitted that it was the necessary antecedent of constitutional infection.

In 1852, the question as to the duality of chancre was again opened by M. Bassereau. It had been almost settled in the negative by the apparently conclusive experiments of Ricord, published in 1838, in his "Treatises on Inoculation." M. Bassereau, however, in his "Treatise on the Syphilitic Diseases of the Skin," attempts to prove that constitutional syphilis is always preceded by an indurated chancre. He distinguishes between the hard and soft chancre, and observes, that these two forms of chancre are only communicated by persons infected with the same variety of the disease. Having observed that in 170 cases of syphilitic erythema the appearance of the eruption has been preceded 157 times by an indurated chancre, and in the other 13 cases, that the induration was doubtful, M. Bassereau observes: "We are here struck by the very large proportion of cases in which constitutional syphilis has been preceded by indurated chancre. Should the same proportion hold good, as regards other constitutional forms of the disease, we must admit that there is a very close connection between the indurated form of the chancre and constitutional syphilis; for it is certain that induration has never been noticed without being followed by constitutional symptoms." At this time, the opinion of Ricord, to use his own words, was that induration of the base, or of the edge of the chancre, has no real importance as a diagnostic sign, as chancres in which this character "is not found are still contagious, and are also capable of giving rise to constitutional disease." Such was the opinion of Ricord, and of nearly the whole of the medical world, when M. Bassereau published his observations. It certainly was not a confession of faith in the dualistic nature of syphilis, and if it required considerable courage in one of Ricord's pupils not to be carried away by the eloquence of the Professor, it required a still stronger effort to declare, at that epoch, that the inoculable and soft chancre was never followed by constitutional symptoms. Since that time, however, M. Ricord has changed his views at least up to the 321st page of his Lectures on Chancre, published in 1860.* The intellectual Surgeon of the Midi there observes: "We must admit of the existence of two forms of virus, one producing the chancre, followed by infection of the system, the other giving rise to the simple chancre never followed by constitutional disease." This is plain and distinct, but after such a declaration we are at a loss to explain the following observation which we find on the next page: "The duality of the syphilitic virus it as yet but a hypothesis on which the future must decide, the unicity of the syphilitic virus be assured is a fact, upon which experience and the past has already decided." Justice compels us to express our admiration for this last work of Ricord's, and to thank M. Fournier for having edited it. He has undoubtedly assisted in the conversion of M. Ricord, and the phrase of Barthelomy that he has used as a motto, has been happily chosen: "The absurd man is he who never changes." We congratulate M. Bassereau on having well observed and generalized M. Fournier on having aided in the conversion of his teacher; and also M. Ricord on having been converted—at least up to the 321st page.

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* Lectures on Chancre, by D. Ricord, edited by Al Fournier, 2d ed., Paris, 1860

In 1854, M. Clerc, another pupil of Ricord, published a work[*] in which he stated that there are two varieties of chancre, the hard and infecting, and the soft and non-infecting chancre; the latter being the result of the inoculation from an infecting chancre, of an individual already suffering, or who has suffered, from constitutional syphilis. From its analogy to varioloid and false vaccination, M. Clerc called this soft non-infecting sore the *chancroid*. Many objections, however, have been brought forward against these views of M. Clerc. It is difficult, indeed, to consider the two diseases as belonging to the same family. When we find one, (the hard chancre,) very seldom (some say never,) inoculable on the same individual, whilst the other, the soft chancre, can be inoculated thousands of times on the person who is affected by it. In fact, many observers have proved the incorrectness of M. Clerc's views, as the soft chancre occurring in individuals suffering from constitutional syphilis has been known, in many cases, to give rise to the infecting chancre in subjects who previously were free from any syphilitic taint.

M. Ballet, in a work published in Paris, in 1860,[†] has continued and extended the views of M. Bassereau. In this work, M. Ballet clearly distinguishes between the hard and soft chancre; and he insists as the test for distinguishing these two forms of the disease, the auto-inoculability of the soft chancre. It can be inoculated, not only on the patient himself, but on any other individual; whilst the hard infecting chancre cannot be inoculated on the individual who is affected by it, nor on any one who is the subject of constitutional syphilis, either in its primary, secondary, or tertiary stages. The soft chancre has no period of incubation; the hard infecting chancre has a period of incubation from 9 days as a minimum, to 42 days as a maximum. According to M. Ballet, the simple or soft chancre, is generally found as an ulcer, sufficiently deep to have destroyed the whole thickness of the skin, presenting a greyish, semi-disintegrated surface, the edges sharply defined, and more or less irregular and undermined, and discharging an abundant sanious pus. This form of chancre is almost always so at its base; when there is any induration it is simple inflammatory engorgement, and is not elastic. On the other hand, the infecting chancre is generally found as a superficial sore, rarely destroying more than the surface of the integument, and presenting a coppery or purplish red color. The edges of the sore are generally bevelled off and continuous with the base, and even about the same bevel. The pus is not abundant, and generally shows a tendency to concrete into a scab over the sore. The sore is situated on a hard elastic base, which gives the sensation of fibro cartilege—this is seldom absent in the male, but is not so constant in women.

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[*] Du Chancroide Syphilitique, Paris, 1856.

[†] De la pluralité des Maladies Vénériennes, Paris, 1860.

The simple chancre generally gives rise to an inflammatory bubo only on one side, and generally involving but a single gland, which has a great tendency to suppurate, and then furnishes pus, which inoculated on the same person, gives rise to a soft chancre.

The hard infecting chancre, on the contrary, generally gives rise to simple induration of the lymphatic glands in each groin, generally involving many glands, of which one is more enlarged than the others; it is, however, indolent, and never suppurates, except from some other exciting cause. The origin of each variety of chancre can always be traced to a sore of an analagous kind, the soft simple chancre never giving rise to an indurated sore, or one capable of producing constitutional symptoms, whilst the hard infecting chancre, always, when it produces a sore, gives rise to one with its peculiar appearance, and its infecting properties.

[TO BE CONTINUED.]

REVIEWS.

RESEARCHES AND OBSERVATIONS ON PELVIC HÆMATOCELE. By J. Byrne, M. D., &c., &c. New York: William Wood. From the Author.

IN this short pamphlet, Dr. Byrne has given a very interesting résumé of a subject which is now attracting considerable attention, not only on account of its novelty, but because it is one that possesses claims to the attention of the practical physician.

It is only within the last ten years that the tendency of blood to escape from the ovaries and collect in the neighbourhood of the uterus has been recognised. No doubt the same thing has been going on for many generations, but the probability is, that attention not having been called to the fact, the disease, when it occurred, was placed in the large class of "obscure diseases," the number of which an improved pathology is fortunately rapidly diminishing. At the same time, we are of opinion that the occurrence of this form of internal hemorrhage is now much more frequent than formerly, otherwise it must have been noticed. There can be no doubt of the increase of uterine and ovarian disease during the last thirty years, and as this is one of their results, it is not surprising that pelvic hæmatocele should have remained up to our own time without being recognized. One of the principal causes of the escape of blood into the cavity of the pelvis, is from a varicose state of the veins of the ovaries, and of the broad ligaments of the uterus. This condition is analogous to what we find in varicocele, a disease which we believe to be much more common at present than formerly. The treatment recommended by Dr. Byrne is puncture through the rectum in cases of retro-uterine hæmatocele, the trocar being large, such as is used in tapping ovarian cysts. In the only case that has occurred under our observation the patient recovered, after the spontaneous rupture and discharge of the contents of the cyst through the vagina.

AMPUTATION OF THE CERVIX UTERI. By J. Marion Sims, M. D. From the Author.

DR. SIMS in treating on an operation which may be occasionally useful, points out a new method of operating which cannot fail to facilitate the performance of the operation itself, and must much abridge the after treatment:

> "The operation is performed by 'splitting the cervix laterally, and removing first the anterior, and then the posterior half, by means of scissors. After the hæmorrhage has ceased, the vaginal mucus membrane is drawn over the stump and secured by four silver sutures, two on each side of the cervical opening. In the old method of amputation, the suppuration continued five or six weeks, sometimes longer, before the parts were entirely cicatrized. According to this plan there is no suppuration, the parts healing by the first intention, and the patient becoming well in a week. In the former, there was danger of pyæmia; in this, there is little, if any. In the former there was risk of degeneration of tissue; in this, there is none; in the former, the parts contracted as they healed; in this, they remain normal. It might have been supposed, *a priori*, that this operation would have been attended by a trouble-some hæmorrhage, but in each case it ceased as soon as the vaginal tissue was drawn over the stump, and in no instance was a ligature used.'"

He reports six cases which he has recently operated upon by this new method, and in all the result has been favorable. We certainly consider that the operation is another of those valuable and practical discoveries with which the author has already so frequently enriched American Surgery.

* * *

IODIDE OF POTASSIUM.—This salt is one of the remedies which has of late steadily increased in general favor. This may, perhaps, to some extent be explained by the fact to which we have frequently adverted, that recent researches have proved many hitherto obscure affections to be really due to remote syphilitic taint. Although very valuable in some forms of rheumatism, and in procuring the absorption of inflammatory products generally, yet it is against the tertiary forms of syphilis that this salt best shows its specific power. Of late years the customary dose has much increased, and eight to ten grains is now with many of our Hospital Surgeons an ordinary prescription. Considering the enormous quantities which are prescribed both in Hospital and private practice, and the rarity of any observable ill effects, it is quite clear that for the most part it exerts no evil influence. Wasting of the breasts and testes, the bugbears of former times, are now never heard of, and anything like iodism is certainly exceptional. The addition of ammonia to all mixtures containing the iodide of potassium is now a very common practice. We mentioned it some years ago as having been strongly recommended, amongst others, by Dr. Gull at Guy's, and by Mr. Paget at St. Bartholomew's. Mr. Paget used to remark that he considered five grains of the iodide with half a drachm of sal volatile equal to ten grains of the iodide alone. With some Surgeons, and especially in the treatment of syphilitic diseases of the nerves or brain, the addition of tincture of nux vomica is frequently made.—*Med. Times and Gaz.,—from Ohio Medical and Surgical Journal.*

EDITOR'S TABLE.

We have to regret the departure of Dr. McCormick from the post of Medical Director of the Pacific Department of the U. S. Army. The Dr. has been again ordered home to take command of the Medical Department at New Orleans, at which point we doubt not but that he will enjoy a wide field for the exercise of his professional talents. Dr. Peter G. S. Ten Broeck, U.S.A., has replaced Dr. McCormick as Medical Director on this coast.

Dr. J. B. Trask, formerly one of the editors of this journal, has been ordered to report himself at Washington, and will leave by the first steamer for the east.

Health of San Francisco.—During the month of May the mortality for the city was 152, indicating a further improvement on the preceding month, and showing a great diminution as compared with our winter months, as in the month of February, there were 222 deaths, which would be at the rate of 246 deaths for a month of thirty-one days, as was the last month. As will be seen, the diminution in the number of deaths, is more than one-half of the present mortality. The ratio of infant mortality, to the whole number of deaths, is still diminishing, as amongst the interments in Lone Mountain Cemetery, only about one-fifth were of children under three years of age, whilst in December the ratio was nearly one-third. There can be no doubt but that the health of the community is in a most satisfactory condition, this great diminution of the mortality having taken place, notwithstanding the arrival of some 5000 emigrants by sea during the month, a class more particularly liable to disease, and by whom the deaths have been undoubtedly considerably increased. With the exception of small-pox, all the other epidemic forms of disease seem to have almost disappeared. There was but one death from each of the ordinary more fatal epidemics, scarlatina, measles, and diphtheria, whilst small-pox was the cause of ten deaths; however, the disease is gradually dying out, and is now selecting its victims principally amongst the Chinese, and that class of the community who have not taken the trouble to be re-vaccinated. We are glad to see that considerable efforts are being made by the city authorities to carry out a system of sewering, as nothing can be more conducive to the health of the community. A large proportion of the deaths that take place during the damp weather are from what are known as zymotic diseases, a class which it has been shown are closely connected with inefficient drainage and ventilation.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late JOHN W. FRANCIS.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from eminent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the SUMMARY OF MEDICAL SCIENCES will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "THE EPITOME"—and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. WELLS, M. D.—DEAR SIR: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage aud can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

Clinical Lecture on Anæmia.

BY THOS. K. CHAMBERS, M. D.

GENTLEMEN: You will remember the corpse-like pallor, made more conspicuous by red hair, of a girl admitted this day fortnight into Victoria Ward. She smiled courteously, but was unable to rise from her bed. Her history is as follows:—

Margaret C., now aged 20, seems to have very good health in general, as is shown by her remembering that she had such an unimportant ailment as a pain in the right side when she was a school girl of seven years old. She seems to have been carefully brought up by a step-father in a higher class of life; but three years ago she lost him, and had to go into service as a housemaid. For this work she was hardly strong enough, and, perhaps, too tenderly educated, and after eighteen months' trial, she gave it up, and was apprenticed to a Berlin wool shop. In this place her mental superiority was apparently recognized, for she quickly became forewoman, with three girls under her, in a shop at Maidstone. She felt this responsibility a good deal, and also thought the closeness of the shop did not suit her, though it did not seem to make others ill. However, she retained a high, bright color in her face, for which she seems to have been somewhat admired, till nine months ago, when she began to lose it, and in a few weeks became as waxlike in hue as she is now. At first her appetite was large, and she always seemed in want of food; but after three months it failed, then ceased entirely, and she took a disgust to food. She had a good deal of pain in the epigastrium and to the left side of it, and also palpitation of the heart. Three months ago she spat up some blood, and had a little cough, which frightened her sadly. Three times during the nine months she has had attacks of low spirits, with crying, but does not appear at all hysterical now. The catamenia always were quite regular and sufficient till the commencement of the anæmia nine months ago, when they began to get scantier and scantier, and at last ceased entirely. The urine is pale and watery, the stools scanty and steadily rare; but there is no sudden gush of bulky stools, diarrhœa alterating with constipation, or other indications of accumulation of fœces in the intestines.

She expands her chest perfectly, and there are no abnormalities to give rise to a suspicion of pulmonary tubercle, at all events in such a quantity as to cause anæmia. There was a soft systolic murmur in the heart when she was agitated at first admission; but it went away after she had rested in bed five days.

Anæmia is found during life, in a great number of the organic changes of tissues which you see in museums and lectures on morbid anatomy, and may discover by diagnosis. In other cases of equal importance and prominence, it is absent. Very frequently, too, you find it in an extremely high degree in cases where you can discover no organic change in the solids at all, and where, from the transitory nature of the bloodlessness, there is reason to conclude that such organic changes really do not exist. Under this last category comes the patient who is the occasion of my present Lecture.

So anæmia or deficient redness in the blood, shows a deficiency of life in the ministers to that redness; either the supply of food is too small, or its assimilation is defective, in both cases either absolutely or relatively, to the existing demand.

In many instances it is easy enough to lay the finger upon the instrument of life which is to blame. We can detect without difficulty the causes at work -starvation, which anybody can understand leads to an absence of the organic matters made out of food; disease of stomach, in which the aliments are not prepared for assimilation; disease of liver and duodenum, producing the same result; disease of intestines, or their glands taking up no adipose matter especially, and so preventing cell growth; disease of the spleen or lungs, which physiological experiments, independent even of our observations of morbid phenomena, show to be answerable for the formation of new blood disks in a way yet unknown; mental derangement, care, disappointment, which so readily arrest the activity of the assimilating viscera; these agencies, and many more, are readily comprehended as causes of anæmia. But there are a considerable number of cases where nothing tangible of this sort is to be made out, yet where the paleness of the blood seen in the face, lips, tongue, or in a drop taken from a pricked finger, and evidenced by the faintness, weakness, palpitation, anasarca, amenorrhœa, etc., are even more marked than where demonstrable lesion is to be found. So it is in the present instance. The young woman's history gives no reason to suspect any organic disease of the lungs or other organs, and the functions of life were fairly performed till she began to get pale and languid nine months ago. The want of red blood, which we look upon as the important feature in her case, attracted her attention also particularly, as she had previously had a fresh, high color. Then, after an interval amply sufficient to enable us to separate cause and effect, come the symptoms which I wish to notice as the cause of anæmia. Causes, no doubt, they are in some instances, but here consequences. I mean the loss of appetite, impeded circulation, cessation of menses, hemorrhage from respiratory mucous membrane, and hysteria in a person unaccustomed to it.

The only explanation she can give of her loss of health is her having been employed in a shop less ventilated than she had been accustomed to, and having the responsibility of the concern thrown upon her. Alone neither would have been sufficient, as the shopwomen under her do not appear to have suffered from the air; while, on the other hand, women in retail business are not as a rule anæmic. But still I think that both together may perhaps be fairly saddled with the blame, for whilst the increased mental labor was increasing metamorphosis, the greater demand was not responded to by greater supply, but, on the contrary, assimilation was checked by the even moderate unwholesomeness of the respired air.

Of course, the not being able to trace deeper the anatomical cause arises from the imperfection of our knowledge, but it does not arise from neglecting to apply such knowledge as we possess to practical medicine. If we were to make an autopsy of this patient instead of curing her, we should in all probability find no more lesions in any of the tissues capable of accounting for the disease exhibited in the blood than we have already found. A fortnight ago Dr. Gull, Mr. Malton, and I examined the body of a gentleman who had died at forty-six of anæmia, and made separately microscopical investigations of portions of the several viscera. Nothing abnormal could we find in any part. The typical healthiness of all the tissues was very remarkable in a man of that age. There was not even a single adhesion of the pleura. I mention this in order that you may not lament the opacity of your patient's bodies, or suppose yourselves likely to learn how to treat them better if you could see their insides.

Anæmia, without obvious organic lesion, when properly treated, is a very curable condition, and this should still further reassure you, that you miss nothing by not being able to study its post-mortem pathology. For transitory and curable states leave but little foot-prints behind them for morbid anatomists. In a great majority of cases they depend upon the mucous membrane, of all the tissues in the body, the one most affected by mortuary changes.

To the mucous membranes I am disposed to attribute the condition in which we find our present patient. The two circumstances to which I have traced the illness both act directly or indirectly on this tissue. The mental exertion involved in an unusual responsibility thrown on a conscientious person would arrest the action of the involuntary muscles which carry along the mass of food through the alimentary canal. You know well the time your food is in leaving the stomach, if you are called to an important midwifery case just after a hearty meal; and several commercial and literary men have complained to me of attacks of vomiting (that is, temporary paralysis of the stomach), when they took dinner alone, and so were apt to let the mind dwell deeply on some interesting subject; and they have told me in wonder that they could dine out and eat and drink all sorts of rich things with impunity. They did not seem aware of the physiological value of frivolous conversation. At the same time that the moral causes thus impeded digestion, the unwholesomeness of the air in the close shop poisoned the mucous membranes, diminishing their vitality and causing them to be abnormally covered with a thick layer of mucous. Remember that, in spite of their name, it is not the business of mucous membranes to secrete mucous; the more perfect is their condition, the more favorable are the surrounding circumstances, the less they do so. From many persons' lungs not a drachm of expectoration is thrown up in a month, and the vast surfaces of the intestines and bladder are equally innocent of even microscopic traces of mucous in the typical health we desire to experience. It is only when the presence of some material agent diminishes their vitality, that the mucous membranes exhibit on their surfaces that peculiar substance whence they take their appellation. And the greater the diminution of life, the greater the secretion; a slight cold in the head will be accompanied by slight catarrh, a severe one by excessive catarrh; and the nearer the approach to death, the greater it is, so that the death rattle, or overpowering collection of mucous in the bronchi, is a popular warning that all is over. Be careful not to look upon mucous secretion as augmented life; it is in fact a partial death.

Well, the poisoning air having covered these slowly moving mucous membranes with a thick tenacious coat, the entrance of alimentary substances into the veins and absorbents was impeded, and our patient starved in the midst of plenty. So all the usual signs of starvation followed. First, hunger—by no means a constant accompaniment of chronic deprivation of food, yet sometimes present as here; then anorexia, a much more frequent phenomenon; then paleness, languor, weariness, and pain in the stomach; then anasarca, and, in short, the other more marked symptoms of anæmia.

You must observe that the loss in those constituents of the body, which are of a nitrogenous chemical composition, is more marked than that in the hydrocarbonaceous fat. The reason is, partly, that the destruction of adipose vesicles is somewhat concealed by the saturation of the tissue with serum, which gives it a false plumpness—partly, that fat, being absorbable without much, if any alteration, is easier taken up than fibrin or albumen, which require a chemical solution before they can be absorbed. So that though starved, our patient looks but little emaciated.

All that I have said before, of course has for its end the treatment. My aim in anæmia is to introduce as quickly as I can the largest possible amount of—1, nitrogenous food; 2, iron; 3, chlorine. When I say "introduce" I do not mean "thrown in," or get swallowed, but assimilated in the system.

As regards the first, it is obvious that if I had written down ever so many "ordinary diets," a patient to whom the very sight of food was an abomination, would have gained nothing by it; she would simply have gone without. I directed therefore, no meals at all, and no solid food, but a cup of milk with some lime-water in it, to be given as medicine every two hours, and a pint of beef-tea in small, divided doses during the day. After two days she managed an egg also daily, and after twelve days of gradual additions of this sort, you will find her on full allowance of mutton chop, porter, beef tea, and milk.

Iron is required to supply the new growth of red disks which we hope for, with their metallic constituent. You cannot get it into the system in any way so quickly as the mistura ferri composita of the London Pharmacopœia. Large doses of the more soluble salts have an action on the mucous membranes which not only prevents them being taken up, but also arrests the digestion of food. Evidence of the latter is found in loss of appetite and feverishness, and of their own rejection in the blackening of the stools much sooner than by the form I have approved of. So in spite of the elegant preparations which are constantly put before us, as recommended by the solubility, such as the chloride, acetate, citrate, phospate and other salts of iron, I prefer the unchemical mixture. It seems as if the carbonate which is preserved from decomposition by the sugar, and the finely-divided oxides diffused through the thick liquid were peculiarly easy of solution in the water saturated with salts and carbonic acid, which (and not pure water) we must remember is the solvent to be considered.

I have found that some cases which did not improve so quickly as I could wish under the above treatment, made a sudden start of improvement when to it was added the administration of chlorine in the form of warm hydrochloric acid baths. More iron is taken up—the blackening of the fœces ceases, and therefore perhaps it may be that the presence of more acid in the system attracts more of the metal. But in a few cases I tried for experiment the hydrochloric acid baths alone, and even then it was beneficial, seeming to confer muscular strength like what are commonly called tonic drugs. I cannot but think, therefore, that it supplies a distinct want in the system, that it is a directly restorative medicine in anæmia.

Nor is it difficult to make this empirical observation accord with rational pathology. In anæmia the blood is more watery than natural; the proportion is deficient, not only of organic matters, but of salts. Chloride of sodium is the most important of these, and the supply of one of the constituents of this material we may reasonably imagine is an aid to the renewal of life, which is the end of all medication.

Besides the above named medicines, you will see, I have ordered Pil. aloes cum myrrh, gr. iv. omni nocte sumenda. Now, do not suppose that this is ordered merely as a purgative, and that any other purgative would do as well. On the contrary, most purgatives do harm in anæmia. Gamboge, castor-oil, sulphate of magnesia, colocynth, mercury, and several others which produce serous elimination and augment secretion generally, would do harm just in proportion to their activity. It seems established by the experiment of making them act as purgatives when injected into the circulation, that their soluble principles have a destructive agency over the blood; whereas the soluble alkaloid in aloes (aloine) is, in fact, a bitter tonic, and the purgative power of the drug resides in its insoluble resin.* Its action is very slightly eliminative—in moderate doses it only slightly augments the solid brown excreta of the colonic glands, and produces fœces feculent in smell and of consistent form; whilst at the same time it restrains, by its bracing bitter, the formation of mucous, as you may clearly see by its action on moist piles, how it dries them up and makes them smart. And by the more vigorous peristaltic action and by the solid mass passed along the gut, the already existing mucous is cleared away. Aloes, therefore, is employed strictly as a clearer of the intestinal, especially of the colonic, membrane. It is joined with myrrh, partly to divide it minutely, and make a small dose go further, and partly to get the advantage of the extra resin.

November 28. A fortnight ago I lectured about an anæmic patient. She was then showing tendency to lose her title to the name, and now she certainly cannot claim it, and has earned our confidence in the statement that her natural hue is rosy. She leaves the hospital to-day, having manufactured enough red disks to color her blood throughout very sufficiently.

What amount of manufacturing industry does this show? Let us reckon. She weighs 8 stone, or 1792 ounces; of this 2 7-ths, or 512 ounces is blood; and of this blood 103-thousandths, that is to say, 60 ounces should be red globules. Now the analyses of M. M. Andral and Gavarret show that in cases of anæmia of at all a marked character (as this was), we may expect, at least, three-quarters of the red disks to disappear, so that when she came into the Hospital it may be fairly assumed that she did not possess above 15 ounces; and now I think with equal fairness she may be assumed to have got up to 45, which is conceding that she still wants a quarter of perfect health. By this reckoning, she must have made 20 ounces of red blood disks; that is, the most important organic constituent of upwards of 150 ounces of blood, in a month!

Mark the power of renewal which the human body has under favorable circumstances, and learn from this not only the curability of anæmia when it is a disease, but also the facility of repairing artificial loss of blood when it is employed as a remedy.

Only note this, that *if the loss is to be repaired, the means of repair must be given.—Chicago Medical Examiner from Medical News and Library.*

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* "Headland on the Action of Medicines," p. 331; and Robiquet in *Journal de Pharmacie*, April, 1856.

THE MEDICAL DEPARTMENT OF THE ARMY.—The act to reorganize and increase the efficiency of the medical department of the army adds to the present corps ten surgeons and ten assistant-surgeons, twenty medical cadets, and as many hospital stewards as the Surgeon-General may consider necessary.

The surgeon-general to be appointed by this law is to have the rank, pay, and emoluments of a brigadier-general. There is to be one assistant-surgeon-general, and one medical inspector-general of hospitals, the latter to have supervisional control of the sanitary condition of the army. Besides, there are to be eight medical inspectors, charged with the duty of inspecting the sanitary condition of transports, quarters, and camps of the field and general hospitals. The appointments to be made by the President, either from the regular or volunteer surgeons, with a sole regard to qualification.—*Medical and Surgical Reporter.*

Further Observations on Anchylosis.

BY BERNARD E. BRODHURST.

AT a meeting of the Royal Medical and Chirurgical Society, the following account of a new operation for the restoration of motion when articular inflammation has resulted in synostosis, was read.

This paper was a continuation of one which was published in vol. xl. of the Society's "Transactions." The Author desired to make that communication more complete by adding some observations on bony anchylosis, and on anchylosis occurring after dislocation. Bony anchylosis, he remarked, was rare, especially in young persons. When, however, it occasioned great inconvenience, as when it occurred at the hip, or when the limb was fixed at an inconvenient angle, motion might be restored by cutting through the bone, and making a false joint; and he contended that this should be done as near to the seat of the normal articulation as possible, thus to allow of the more free action of the muscles. The details of a case of bony anchylosis of the hip were given, where the neck of the thigh bone was divided and a false joint was established. This operation had on no former occasion been performed. The case was seen with Dr. Brown, of Brighton, and was as follows: A young lady, twenty-five years of age, began to suffer from hip-joint disease when she was six years old. Abscesses formed, and at length bony anchylosis ensued, the limb being fixed in such a position that the foot remained five inches away from the ground when the patient stood erect. The sole of her boot was four and a-half inches in thickness. The patient was only able to move about on crutches, and in consequence of her great discomfort, and of her desire to obtain some motion at the hip, it was determined to divide the neck of the thigh-bone, to remove the necrosed portions of bone, and to form a false joint. The operation was commenced by making an incision two and a-half inches in length, which commenced one inch and a-half above the great trochanter, and which was carried downwards and outwards to the outer side of the trochanter itself. The upper portion of the incision was extended upwards and inwards for two and a-half inches, until it fell into a suppurating sinus immediately below Poupart's ligament. The neck of the femur was sawn through, and the sharp edges of the bone were removed, as well as the necrosed bone from the acetabulum. The upper half of the wound healed by the first intention, and in three weeks the whole had healed. At this time the patient had some power of flexion and extension. Passive motion was employed, both to prevent osseous union and to give shape to the new head. In six weeks an instrument was adapted to the limb, with which the foot could be firmly planted on the ground. The soles of the right and left boot were at this time of the same thickness. Three months after the operation she could bear considerable weight upon the foot; she could sit comfortably in a chair, and could walk, using the joint, but still supported by crutches. Also the details of the following case, which as well as the former, was seen with Dr. Brown, of Brighton, were given: In September, 1860, a midshipman falling from the main-rigging on to the deck of the vessel, dislocated the femur on to the dorsum ilii. Various attempts were made to reduce the bone, which were unsuccessful, until the fourth attempt was made, three months after the accident. The head of the bone was then returned to the cotyloid cavity, and the limb was kept motionless so long that it became anchylosed, in which condition the patient was seen by the author, thirteen months having elapsed since the accident occurred, and ten months since the restoration of the head of the bone. The thigh at the hip was immovable; the heel was two and a-half inches from the ground; the foot was everted; the limb was wasted. The patient could only move with sticks or other support. It was determined to rupture the adhesions and to endeavor to regain motion. Under the influence of chloroform they yielded readily. There was no pain after the operation, so that it was unnecessary to administer an opiate. Considerable voluntary power was soon gained; it was found, however, that the adductor longus muscle being retracted, controlled unduly the motions of the limb. Its tendon was, therefore, divided subcutaneously, and the entire range of motion was then restored. After four months the patient could bring his heel firmly to the ground; he could move the limb in every direction, and he could walk a distance of five miles without resting, and without subsequent pain or fatigue.

Mr. Holthouse did not understand how the limb, which, before the operation, was so much shorter than the other that the foot did not reach the ground by four or five inches, could, by the operation, have been made so long that the patient was able to stand upright with both feet flat on the ground. He presumed that the femur was bent at a considerable angle; but even after it had been brought into position by sawing through its neck, the removal of the necrosed head (as implied by the gouging out of the acetabulum) must still have left the limb considerably shorter than its fellow.

The author said that the bone was simply cut across, no part of it being removed, the result being a false joint. The position of the limb was nearly in a line with the body, but in consequence of the patient endeavoring to walk the pelvis had been much tilted. The limb, however, was a little everted, and was about five inches from the ground. It was most inconvenient, the patient could not sit, nor walk without crutches. He thought that the operation was a very desirable one. It was easily performed. The result was good, and he was surprised that it had not been attempted before.

Mr. Barnard Holt said that he could confirm Mr. Brodhurst's opinion that firm anchylosis at the hip-joint was rare. Imperfect motion was common. He considered that Mr. Brodhurst had acted on a good principle in endeavoring to make a false joint, the same result as was hoped for in treating diseased joints. Mr. Holt said that there was then under the care of Mr. Hillman, in the Westminster Hospital, a case of firm anchylosis of the knee at a very inconvenient angle. It would be worth consideration whether this method of treatment might not be desirable in the case of the knee, although it would not do to argue that because it was successful in the case of anchylosis at the hip-joint, that it would necessarily be so at the knee also.

Mr. Gowlland said, that some years ago Dr. Little, in a case of anchylosis at the hip-joint, and in which the limb was almost at a right angle, recommended that the bone should be sawn through. The boy's parents would not consent to an operation.

The author said, that in his patient there was as yet no lateral motion; but in a little time he hoped that there would be. The limb is well supported, and bears the body well.

Mr. Henry Lee said, that in a case of anchylosis at the elbow, the arm being quite straight, he had divided the humerus just above the elbow-joint, with a very good result.

Mr. Holthouse said, that when at the Smyrna Hospital he did an operation similar to that mentioned by Mr. Lee, and the result was so far good, in respect to altered position, that the patient could feed himself; but no motion could be obtained, all attempts to procure it setting up inflammation.—*Medical Times and Gazette.*

Experimental Inquiry into the Composition of some of the Animals which are Fed and Slaughtered as Human Food.

BY MESSRS. LAWES & GILBERT.

THE animals analysed were oxen, sheep, and pigs. The authors determined the actual and per centage amounts of water, of mineral matter, of total nitrogenous compounds, of fat, and of total dry substance, in the entire bodies and in different parts of ten animals. There appears, from these analyses, to be a prominent connection between the amount of animal matter and of nitrogenous constituents of the body. The average amount of *mineral matters* in the entire bodies analysed, may be estimated, in lean oxen to be 4½ to 5 per cent.; in lean sheep, 3½ to 4 per cent.; in lean pigs, 2½ to 3 per per cent. In fattened animals the figures would be—for oxen and calves, 3½ to 4 per cent.; for sheep and lambs, 2½ to 2¾ per cent.; for pigs, 1¼ to 1¾ per cent. "Of total nitrogenous compounds, there were in the fasted live weight of the fat ox, 14½ per cent.; in that of the fat sheep, 12½ per cent.; in that of the very fat one, not quite 11 per cent.; in that of the moderately fattened pig about the same—viz. 10·87 per cent. The leaner animals analysed contained from 2 to 3 per cent. more nitrogenous substance than the moderately fattened ones. The fat is the principal constituent of the dry substance of most animals consumed as food. The fat calf alone contained less fat than nitrogenous substance; while the entire bodies of the fat ox and lamb contained about 30 per cent.; of the fat sheep, 35½ per cent.; of the very fat sheep, even 45¾ per cent; of the moderately fat pig, 42¼ per cent. of fat. "The average composition of the six animals assumed to be well fattened showed, in round numbers, 3 per cent. of mineral matter, 12½ per cent. of nitrogenous compounds, and 33 per cent. of fat, in their standing or fasted live-weight." The meat of fat animals contains a smaller per centage of fat, than that of lean animals. Lawes and Gilbert further estimated, "that, of the whole *nitrogenous substances* of the body, 60 per cent. in the case of calves and oxen, 50 per cent. in lambs and sheep, and 78 per cent. in pigs, would be consumed as human food. Of the total fat of the bodies, on the other hand, it was supposed that in calves and lambs 95 per cent., in oxen 80 per cent, in sheep 75 per cent., and in pigs 90 per cent., would be so applied." "Assuming," the authors argue, "the proportional consumption of the fat and nitrogenous compounds to be as here estimated, there would be in the fat calf analysed 1½ times, in the fat ox 2¾ times, in the fat lamb, fat sheep, and fat pig, nearly 4½ times, and in the very fat sheep 6¼ times, as much dry fat as dry nitrogenous or flesh-forming constituents consumed as human food." If we compare the composition of meat with that of our vegetable foods, especially wheat-flour bread, and and assume 2½ parts to be the "starch equivalent" for one part of fat, we find that bread contains 6·8 parts of fat respiratory or fat-forming to one part of flesh-forming material, while the average of the six animals yields the proportion of 10 parts of starch equivalent to 1 part of nitrogenous compounds; the meat of the fat calf alone exhibiting a lower proportion than the bread. —*Edinburgh Medical Journal, from Proceedings of the Royal Society*, vol. ix, p. 348.

W. A. HAMMOND, M. D. has been appointed by the President Surgeon-General of the U. S. A.

Clinical Lecture on the Physiognomical Diagnosis of Disease,

BY THOMAS LAYCOCK, M. D.

Professor Laycock delivered his ninth lecture at the Royal Infirmary, Edinburgh, the subject being the "Diathetic Diagnosis of Gouty or Atheromatous Consumptions and Hæmoptysis." The Lecturer said:

Gentlemen: Let us inquire in what diatheses prætubercular hæmoptysis occurs. Your attention has been repeatedly directed at the bedside to that form of consumption which occurs in certain persons of the neuro-vascular diathesis. It was this kind with which John Hunter was threatened, and of which his elder brother died. The two Hunters and their father had gout, and John had extensive atheroma of the coronary and cerebral arteries. This interchange of tuberculosis, lithiasis, and atheroma, is one of the most certain facts in practice, so that we may speak of a gouty or atheromatous consumption. It is this in which its most exquisite form is ushered in by hæmoptysis; and I think there is little doubt that the state of the blood-vessels in this class of cases is only another form of manifestation of that diathetic tendency to vascular disease that, later in life, gives rise to atheroma. The connexion between tuberculosis and atheroma is not well understood generally, or appreciated practically, nor even that between atheroma and gouty diseases, for want of more careful and prolonged observation, and of a clear knowledge of the diseases included under the term "gouty." Hence the doctrine that gouty, atheramatous, and tubercular diseases run into each other, is a surprise to many.

Bilious Gouty Phthisis.—The physiognomy in this group of consumption varies with the temperament and the kind of gouty or atheromatous diathesis. We can mark out, however, two typical forms, the one with the signs of the sanguine, and the other of the fibrous or bilious temperament. Now, just as the "bilious" type offers the worst cases of struma in children, so it supplies the worst kinds of gout and phthisis in the adult. Women of this constitution are sometimes attacked with gout, and it even comes on at an early age, that is, at or shortly after puberty—in this respect resembling rheumatic fever; whereas, in persons of the other type, women are less commonly the subjects, and it rarely attacks males before 30, usually, indeed, between the ages of 40 and 50, or later. These olive complexioned phthisical arthritics are predominantly of slender form, with small limbs and bones, and small but regular teeth, apt to be yellow. The complexion is also dingy rather than of a clear olive tint. They have feeble calorific powers, as shown by their habitually cold hands and feet, require good living, easily suffer from depressing agents and conditions, are apt to have diathetic forms of purpura or scorbutus in middle age, and, above all, are particularly liable to hæmoptysis and phthisis at or shortly after puberty, under conditions which favor defective nutrition or defective functional activity of the lungs. I know a family of this kind, numbering nine females and five males; two males and one female died young; five females died at or soon after puberty, and one of diathetic purpura at the age of 40, ushered in by profuse hæmoptysis, and one died, cause unknown. The eldest son survives a martyr to gout, and the fifth daughter aged about 60. Her dietetic habits illustrate the question lately mooted, whether alcohol be food or physic. She keeps herself well by *never drinking* water; only three or four glasses of wine, and two or three cups of tea daily. The father was very gouty and bilious. We have two or three examples of phthisis in persons of this temperament.

Physiognomy of the Florid or Neuro-vascular Phthisis.—Persons of the neuro-sanguine temperament being most numerous in this country, are much more commonly found to be the subjects of this atheromatous or gouty form of consumption, as they are commonly of atheroma and gout. There are six phthisical patients in the wards of this temperament; five have had hæmoptysis, the sixth the exception to this—has diabetes mellitus. Both a vascular and nervous element is noticeable in the most typical examples constituting the neuro-vascular diathesis, and these give the leading physiognomical characters of the class which have often been described; namely, slender limbs, long neck, transparent florid complexion, dilated pupils, and small expressive features. The accompanying vivacity of manner and clear rosy complexion lead to a delusive appearance of vigor, for upon inquiry it is found that these persons are easily wearied, and that their digestion is feeble, and other functions irregular. The hair is thin and apt to fall, and the teeth small and prone to caries in bad cases. This is most observable in the upper incisors, especially in the lateral, which often begin to decay at puberty and usually at the sides. In this respect they differ from the teeth of the true scrofulous diathesis, which begin to decay from without. I am inclined to think the difference is due to special conditions of dental nutrition. In the vascular arthritic tuberculosis the caries is due to imperfect activity of the blood-vessels; in the scrofulous to imperfection in the enamel, and consequent exposure of the tooth to external irritants, of which the habitually acid saliva is the chief.

The Plump or Phlegmatic Phthisis.—There are, however, consumptive persons of the arthritic diathesis who do not offer these characteristics, or at least in a less degree. They have marks of more vigorous health; they are less nervous; the teeth are often regular and sound, and the body generally plump, and apparently well nourished. This is specially seen in the female members of the family, who have plump arms, shoulders and mammæ. The appearance is, however, delusive, for it is mainly due to a deposit of fat in the connective tissue, and this when in excess is a physiognomical mark of feeble nutrient powers in any diathesis or temperament. Girls of strumous families often become very plump in this way at or shortly after puberty, especially in the face and about the lips and mammæ. But the fat soon disappears when ill-health sets in; hence, in the same family you will not unfrequently see some phthisically thin, while others, although plump, are really as phthisically fat. This class of cases shows how closely the tendency to pulmonary tuberculosis is linked with other tendencies to degenerations in nutrition, and prove that the morbid change really depends upon general causes. Indeed, when we look practically at the various kinds of that general wasting from which consumption first derived its name, we cannot fail to observe that it often accompanies diseases of the nervous system exclusively, and other diseases of the lungs than the tubercular; as, for example, long-standing asthma, bronchorrhœa, and chronic bronchitis.* The complexion is usually florid in these plump cases, but it has a characteristically dappled or mottled appearance, which is due to the small white or whitish-yellow spaces (indicating fatty deposit) which appear between clusters of varicose blood-vessels. The teeth are dingy, and often decayed, the lips rough and cracked, and there are other signs of a scrofulous tendency. Such constitutions give origin to bad forms of consumption, and are, I believe, most commonly the result of a "cross" between a gouty and scrofulous habit.

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* This is the *phthisis pituitosa* of the earlier writers; a case was admitted into Ward XI. and diagnosed as such subsequently to the delivery of this lecture: there were extreme wasting, very copious purulent sputa, and hectic—the case being like tubercular phthisis, in short, in all particulars, except the physical signs. After death, no tubercle was found, only intense bronchial congestion.

Lastly, persons of a neuro-sanguine temperament simply are apt to have pulmonary hemorrhages and consecutive tuberculosis under circumstances specially influencing the lungs, without any family predisposition to it, or to gout or atheroma A few years ago, a young, strongly-built fisherman, from Wick, in Caithness, came into Ward I. with tuberculosis of the left lung following upon hæmoptysis. He was the last man to diagnose as diathetically predisposed, whether from a consideration of his employment, his personal appearance (which even then was that of robust health), or his family history, because neither his parents or any of his numerous brothers or sisters had ever had phthisis. But he had the typical characters of the neuro-sanguine temperament; had been lately married; shortly after marriage had an attack of measles, in which his "chest" was affected, and it was these especially exciting and predisposing causes of lung-degeneration which, acting upon him through his temperament, developed hæmoptysis and tuberculosis.

The *cause of phthisis* in this group differs according as one or other of the primary diathetic tendencies predominates. In one class there is an admixture of the scrofulous, in another of the rheumatic, and then scrofulosis and heart diseases modify the symptoms and progress; but the majority are young persons in whom the vascular and nervous elements predominate. In these there is a more inevitable tendency to hæmoptysis than in other forms, more erethism generally, more irritability of the nervous system, and more activity of the morbid processes. The tuberculosis is not commonly preceded by blood degenerations; intercurrent pleurisies and pneumonias with plastic exudations are more the rule, and the whole course of the disease, as a consequence, more rapid and less under the control of remedies. The nervous symptoms are usually more striking. The patient is fastidious as to foods, especially the fatty, and cannot take cod-liver oil; often desponding and nervously sensitive to all kinds of impressions in the early stages, and apt to have head affections towards the close. The morbid hopefulness of phthisis, physiologically termed euphoria, is seen more particularly in this class of patients. I have often called attention to it at the bedside, and shown that it ushers in the last stage. It is really a disease of the nervous system of a low type, a sort of insanity, and is of the worst significance.

The *tubercle* is usually the grey or miliary, except when there is a decided strumous element, and acute tuberculosis (subacute tubercular pneumonia) is most common in this class, but always under conditions deeply involving the healthiness of both the blood and nervous system. We had a striking example of this in the case of the old butler, James T., in Ward I., who had extensive atheroma of the aorta.

Retrograde Tubercle is observed more commonly in this form than in the scrofulous, because the degeneration is more circumscribed and more associated with plastic exudation than with fatty degeneration, so that it is apt to undergo analogous transformations rather than softening, and to end in cornification or calcification. Hence the origin of the calcareous masses sometimes expectorated. This kind most frequently occurs in persons predisposed diathetically to heart diseases, and who have emphysema as a sequel to retrograde tubercle; but these diseases are not in the relation of cause and effect, being all due to a primary common cause, namely, defective innervation of the heart, blood-vessels, air-cells, and capillary bronchi. Asthma and chronic bronchitis are also sequelæ of retrograde tubercle from the same cause.

The Hæmorrhagic Diathesis and Hæmoptysis.—Hæmoptysis occurring about puberty is so important, so alarming, and so significent a symptom, that we cannot scrutinize the pathology of it too closely. Now, for the purposes of diathetic diagnosis we can classify the cases of phthisis in which it occurs accordingly as it is *intercurrent*—*i. e.*, one of the general group of symptoms of active tuberculosis,—or as it is *precurrent*, and manifested before there are any of either the general or local signs of phthisis, and even when the patient feels and appears to be in good health. But there is a class of cases in which hæmoptysis is *recurrent* from time to time throughout a long period of years without tuberculosis either preceding or following it. This is seen chiefly in persons of what may be termed the *hæmorrhagic diathesis*, and who, when they manifest the tendency to hæmorrhage in other ways, are termed "bleeders" are almost invariably of the neuro-arthritic or neuro-scrofulous diathesis; they are either fair or dark, but the worse cases in this country are dark. They are predisposed to scrofulous, rheumatic, and gouty diseases, but have also a remarkable tendency to bleed from the skin, nose, lungs, or other surfaces, and from slight wounds. This is not equally intense at all times, and even the hæmorrhages are apt to recur spontaneously with nervous, acute rheumatic, and congestive symptoms, so that peculiar affections of the capillaries, purpura, and sudden visceral congestions—as of the brain, liver, spleen, joints—are apt to occur. They are particularly liable to erethistic diseases of the nervous system. The late Professor George Wilson was an example of this diathesis of the dark complexioned type. He was endowed with almost feminine sensitiveness, although his intellectual powers were good; and he had a vascular system so nervously irritable that hæmoptysis constantly came on whenever he engaged too sedulously in mental labor. The wonder was that he lived so long, and did not die of phthisis at last. But the spleen, as well as the lungs, is apt to suffer diathetically, as in his case. For, having occasion to examine him, I found he had an enlargement of the spleen, and inferring from his diathesis that it must be of hæmorrhagic origin, I inquired if he had not had vomiting of blood. His reply was very characteristic; he had had an attack wihch his Medical friend had termed hæmoptysis, but which *he* thought was not hæmoptysis, and he had therefore got his epitaph ready, to wit:

> "Here lies George Wilson, o'er taken with Nemesis,
> He died—not of hæmoptysis,—but of hæmatemesis."*

The hemorrhagic diathesis presents many of the peculiarities of the rheumatic or gouty, whether we regard the age. sex, hereditariness, tendency to articular affections, or the exciting causes of the periodic or paroxysmal bleedings. Thus the tendency to bleed is at the earlier ages; in the middle and decline of life it is replaced by gout, cardiac diseases, asthma, hæmorrhoids; and at or after puberty rheumatic affections of the joints are of common occurrence. It is very hereditary; in 452 recorded instances there are only nineteen in which no relative was similarly affected. In some families it can be traced back ninety years. The males are more affected than females in the proportion of fourteen to one, but the females transmit the tendency, although unaffected. This is what happens in gout, and I think statistical researches will show it is the same with this kind of diathetic pulmonary hæmoptysis, for males are more subject than females to spitting of blood in all forms of phthisis, taken indiscriminately. The females are predisposed, however, to profuse menstruations, floodings, chlorosis, ecchymoses, and rheumatic diseases. Then, again, in these hæmoptysis there is a diathetic hemorrhage as to age, occurring most commonly, like epistaxis, at or shortly after puberty, and replaced by gout, atheroma, rheumatism, in middle or declining age.

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* This incident is referred to in Professor G. Wilson's Memoirs by his Sister.

Different kinds of Hæmoptysis.—We must discriminate clinically the different kinds of blood-spit, and the probable sources of the blood. Hæmoptysis is a term which implies not only that the blood is derived from the lungs, but that it is nearly free from extraneous matters. When in small quantities and commingled with bronchial mucous, as in hemorrhagic bronchitis, or when present in the rust-colored sputum of pneumonia, or streaking the spit of phthisis and cancer, or tinting the watery discharge of purpura hemorrhagica, we call the symptom sanguineous expectcration rather than than hæmoptysis. Again, bloody spit from the rupture of a thoracic aneurism into the air-passages is not hæmoptysis, but hemorrhage; nor is that which sometimes occurs in hysterical girls as a "vicarious" menstruation, but a diathetic hemorrhage. We had a case of acute phthisis with splenic disease in which there was sanguineous expectoration; it was not, in truth, true phthisis, but a chronic pneumonia ending in scorbutic disorganisation of the lung and characteristic bleeding from the vessels. Then, again, we have several cardiac (mitral) cases of hæmoptysis without a trace of tuberculosis.

Where the Blood comes from in Hæmoptysis.—Now, seeing how influential morbid actions of the heart are in predisposing to or exciting hæmoptysis, and seeing how much too commonly cardiac diseases are diathetic in their origin, it becomes of importance to determine in what class of cases the hæmoptysis is primarily due to cardiac action, in what to vascular disease or defect, and in what to both. The question as to the source of the hemorrhage, *i. e.*, whether from the bronchial mucous membrane or the air-cells, is here of some importance, and as to this there is much contrariety of opinion. In that kind of pulmonary hemorrhage almost invariably associated with cardiac lesion, termed pulmonary apoplexy, it is believed by Dr. Watson to be always bronchial; and since the time of Bichat, the Parisian school has considered phthisical hæmoptysis to be always of bronchial origin. Dr. Walshe (with others) attributes it to molecular rupture of the capiliary vessels of the parenchyma, except in those very rare cases in which a vessel of some size is perforated; and says he has never seen a case in which it was probable the bronchial mucous membrane was the seat of the hemorrhage. I think the truth is in part, although not equally on both sides. The *pathology and meaning of epistaxis* will help us to a conclusion, for it is a symptom of considerable significance, although generally overlooked in persons of phthisical habits. I have often noted it as being premonitory of future hæmoptysis, and often, too, observed as coinciding with intercurrent attacks. We have questioned our phthisical patients as to the bleedings from the nose they have had, with these results: four of twenty-one cases had never had either epistaxis or hæmoptysis; three of these are strumous, and the fourth a miner with black spit; four have had both hæmoptysis and intercurrent epistaxis; three precurrent epistaxis, and then (in a few months after) precurrent hæmoptysis; three had precurrent epistaxis, but no hæmoptysis,—one of these with a rheumatic history, aged 47, had three attacks, the blood flowing profusely,—and three had hæmoptysis but no epistaxis. In the remaining three cases the histories are defective; but it results that of eighteen cases of phthisis of all kinds, fourteen had either epistaxis (3), or hæmoptysis (3), or both (8). Epistaxis is usually thought of little consequence and of no diathetic or prognostic value; this I am satisfied, is a practical mistake. In 227 cases of diathetic "bleeders" in which the source of the hemorrhage was noted, it was nasal in nearly half, or 110; and in many it was found that epistaxis, hæmoptysis, hæmaturia, and hæmatemesis succeeded or alternated with each other, or were "metastatic." And if practitioners were to watch their cases of epistaxis (chiefly pubescent lads) though subsequent years, they would find that repeated and profuse attacks about puberty in certain constitutions *do* indicate a tendency to hæmoptysis and tuberculosis subsequently. I say about puberty, because this is the age at which diathetic hæmoptysis most commonly occurs in phthisical subjects; you hardly ever see it in children. The bleeding is, as to fact, both equally diathetic; but as epistaxis is rarely associated with, or even followed by, any grave symptoms, its meaning is not observed. Now, if you look at the nasal mucous membrane in these cases of precurrent epistaxis, you will often find it red and swollen; such also is its appearance in cases of incipient phthisis. Epistaxis and hæmoptysis, when diathetic, are, in short, in much the same relation to each other as catarrh and bronchitis; the one ushers in the other.

Pharyngeal Hœmoptysis.—The blood does not in all these cases come either from the lungs or nose, but from the pharynx. This I have repeatedly ascertained to be the case in young persons diathetically predisposed to hæmoptysis and phthisis. They do not cough up, but hawk up or exscreate the blood; and, in particular, I think it is in such examples that the blood flows out of the mouth during sleep, and stains the pillow. These patients have hardly any pulmonary symptoms, but the pharynx is seen to be relaxed and veined over with small dilated vessels, and sometimes marked with blood. This kind of hæmorrhage, like epistaxis, will precede tuberculosis several years.

Well, then, what is the *relation of cardiac disease* to *epistaxis and hœmoptysis?* Is it that of cause and effect, or are they coincident morbid states? I think neither exclusively. The heart is only a portion, although an important portion, of the entire vascular system; consequently, what predisposes to disease of the heart will predispose to disease of the blood-vessels. This is true practically in multitudes of cases; so that, while we admit, as we undoubtedly must, that the interruption of the circulation through the cardiac cavities and large vessels by valvular narrowings or insufficiency is a cause of hæmoptysis, we must also admit that the same diathetic conditions which predispose the patient to this class of disease will also influence the nutrition and contractility of his blood-vessels. And if perchance those of the lungs are predisposed to suffer from special causes, then there will be hæmoptysis. But it must be remembered that these structural diseases of the heart only excite hæmoptysis because they excite congestion of the lungs, as is seen in cases of mitral constriction, and that this may equally follow upon functional disturbance of the rhythm of the ventricles. It is enough for this end if the impulsive force of the two ventricles be unequal, or, in other words, if the left ventricle do not deliver the blood as freely as the right. Now changes in the *innervation* of the ventricular muscle, or in the muscles of the valves, may suffice to disturb the harmony of function between the two hearts, and may therefore be sufficient to induce hæmoptysis when the bronchial capillaries are ready to yield to the pressure; and I think this is what takes place in many precurrent cases of hæmoptysis. Further, in a certain class of cases the local and general symptoms and the history serves to indicate that it is a species of rheumatic attack in which the innervation of the heart is involved, instead of the joints. There is no exudation it is true, nor inflammation properly so-called. Only disturbed cardiac action, rapid pulse, thoracic pains, and hœmoptysis *sui generis*. Now, this kind of capillary rheumatism occurs in the diathetic "bleeder" when the hæmorrhages take place; it is also met with in a certain class of cases of acute purpura hæmorrhagica with articular complication, which I have long classed amongst rheumatic diseases, and which I incline to think is partly due to a rheumatic affection of the trabeculæ of the spleen—a tissue diathetically the same as the cardiac. And I am satisfied that I have seen several cases of precurrent hæmoptysis which may be classed with these—the morbid diathetic state being limited to the blood-vessels of the heart and lungs. The treatment in which cases is wholly diathetic— by nitrate of potash, digitalis, or aconite, and when there is much erethism, by acetate or lead and opium. I need hardly say that gallic acid, tannin, turpentine, and the entire empirical class of astringents are wholly unsuited to such cases. Nor is there any reason to think that in these there is necessarily tubercular deposit, no more than there is in the nasal or pharyngeal mucous membrane in cases of constitutional epistaxis; there may or not be; often there is, but the absolute significancy is as to the morbid condition of the vascular system and its influence on the nutrition of the lung-tissues. Hence it is that there is a class of cases in which the hæmoptysis recurs from time to time rather as a rheumatic than a tubercular affection, and as such may have in fact, a life-long duration if care be taken that the causes of tuberculosis be obviated. And in such there is no more reason to conclude there is rupture of the blood-vessel or blood-vessels than in cases of rheumatic purpura hemorrhagica, or of diathetic hemorrhage in the so-called bleeders. In these cases bleeding vessels have been carefully looked for, and could never be found. Upon the whole I think, it must be concluded that in precurrent hæmoptysis the blood has the same tissue-source as in precurrent epistaxis, and is, therefore, from the bronchial mucous membrane. Whether in all cases of mitral constriction, or when pulmonary apoplexy occurs in cases of pneumonia or otherwise in middle age, it is from the same tissue is doubtful; it may be in some, but I think it is in the majority from the vessels to the parenchyma. At all events, it is clinically a wholly different kind of hæmoptysis.

Influence of the Nervous System on Hæmorrhagic Phthisis.—In all these cases of diathetic pulmonary hemorrhage, whether precurrent or intercurrent, the mechanical theory of congestion is insufficient to explain all the phenomena; for granting that the one is due to exsudation of blood from the capillaries, and the other to hemorrhage from a perforated vessel (as it undoubtedly sometimes is), there are a much larger number of cases of congestion of the lungs in which you have no kind of hemorrhage whatever, while it only occurs occasionally in the individual affected.

It may be alleged that the pulmonary congestion which accompanies pulmonary tubercle is of a special character, and this is why hæmoptysis and tuberculosis of the lungs coincide. There are, doubtless, good reasons for this opinion; first, in the fact that they do so very frequently coincide and, secondly, in the histological anatomy of tubercle: for it has been abundently shown that there is extensive fatty degeneration or atheroma of the smaller vessels, and even of the aorta in phthisis. But then there are cases which cannot be brought under generalisations. There is, for example the case of H., in Ward XI., who has had epistaxis and spitting of blood for several years past, and who had diathetic degeneration of the vascular system, as indicated by aneurisms of the aorta and innominate artery. She has also albuminuria, yet the signs of phthisis in her, if any there be, are most obscure. We had a case two or three years ago of a man who had cardiac murmurs, rheumatic symptoms, the signs of pneumonia, or pulmonary condensation, and hæmoptysis for several weeks, yet after death, a few weeks subsequently, no tubercle and no valvular disease were found. Again, both lungs are not equally affected; you will often find the physical signs of the first stage of phthisis chiefly, if not exclusively, in the left subclavicular region, when precurrent hæmoptysis occurs in persons of a gouty or rheumatic habit, with hereditary tendency to heart-diseases. I have surmised that the reason of this preference of the left lung, whether in inflammatory or tubercular cases (for the same is seen in rheumatic pneumonia and pleurisy), may be found in the anatomical relations of the left pulmonary veins. They enter the auricle lying so very closely together that pressure upon one could hardly be made without involving the other. Now such pressure would have the effect upon that lung which mitral condition or insufficiency has upon both lungs. There are various modes in which such pressure might be made; one of the most obvious is enlargement of the bronchial glands. But this explanation would necessarily imply that *all* tubercular and congestive affections must be manifested chiefly, or in the first instance, in the left lung, which is by no means the case; on the contrary, a pleurisy of the right lung is far more likely to be tubercular than one of the left. Besides, in the diathetic forms of hæmoptysis another cause may be traced, viz., the influence of the nervous system: changes in this are the exciting causes of the whole group of "hysterical" hemorrhages; nay a sudden emotion (as fear or terror) may be followed by purpura hemorrhagica in a few hours; and mental labor or anxiety will not only affect the heart's action, bnt the lung capillaries, and bring on hæmoptysis Hence we must attribute the perferential affection of the left lung and the heart to a defect in the innervation of their nutrient and motor nerves. Now, as these are derived from the pneumogastric, we must found our pathology of these forms of phthisis, in so far as they are thus distinguished from other forms, upon the anatomy and physiology of the minor sympathetic, as the oldest anatomists most expressively designed this great system of nerves. I have already pointed out to you what influence is exercised by the nerve-centres on the development of phthisis, as revealed by clinical observation, and this is but a part of the same general doctrine; but we want to know why, in these nervous erethistic forms of phthisis there is a special tendency to hæmoptysis and all the other group of diathetic changes. Experimental researches have abundently proved the influence of morbid state of the lungs. Professor C. Bernard saw pulmonary apoplexy follow in a dog after divisoin of the nerve in the neck, and Schiff even succeeded in developing both hepatisation and tubercles in a rabbit. Further, pathological researches have not only shown that the ganglion of the vagus and the medulla oblongata are affected concurrently with pulmonary lesions of various kinds, but that the action of these centres is a crossed action. Hence we may infer that the morbid action may *begin* in the heart and left lung, and these when diseased involve the right lung by crossed centripetal action on the corresponding portion of the nerve centre, just as often a diseased eye finally involves the healthy one, according to the law I have explained elsewhere.

As an example of the same kind of action of the nervous system, I might mention the close relation between diabetes mellitus, and tuberculosis, on the one hand, and injuries of the respiratory or pneumo-gastric nerve-centres on the other; and I think I may venture to observe that if the connexion of these nerve centres with certain forms of phthisis has not been demonstrated by anatomical research, it is because they are not really, if ever, examined after death from phthisis. I need hardly say how great a defect this is in the pathological anatomy of the disease.

We can, however, conclude from all these facts that in precurrant hæmoptysis of a certain kind there is centric defect in the innervation of the blood-vessels, which is diathetic as to its predisposing influences in regard to both the vascular and nervous systems. This is specially excited into activity at puberty, when both the brain and lungs are experiencing increased nutrient and functional activity and development. As to the brain, it shows itself chiefly by epistaxis; as to the lungs, by hæmoptysis. What change is induced in the blood-vessels is not so clear; but it requires the concurrence of a morbid innervation; it gradually diminishes in intensity of hæmorrhagic effect as age advances; and it may be readily developed into activity by causes which depress the powers of the nervous system and the functional and nutrient activity of the body. This nutrient activity is less influenced in the direction of tubercular as well as hæmorrhagic degeneration as age advances but atheromatous or calcific degeneration of the blood-vessels—that kind more peculiar to advancing years takes their place,—and hence it is that in this kind of constitution hæmoptysis and tuberculosis at puberty are replaced by arterial degenerations in the heart and brain in middle life, as in the case of John Hunter.

As you have been already informed at the bedside as to the various modes of treating phthisis which naturally result from this method of a diathetic diagnosis of the tissue changes, I need not dwell on them; there is a caution, however, as to the use of cod-liver oil which I would now mention, and that is, while it is not only an object of disgust, for the most part, with the erethistic class of phthisical patients, there is a grave doubt whether it may not be injurious by increasing the tendency to atheroma. Death from hæmoptysis is very rare in phthisis, occurring in not more than one per cent.; now, the only accidents of this kind which I have witnessed were in consumptive patients of the atheromatous diathesis who had taken cod-oil largely.

The physiognomical value of the *general wasting*, from which consumption gets its name, differs in the same way as hæmoptysis, namely as it is precurrent or intercurrent, and for the same reasons. You will have patients with no other phthisical symptoms than this; it is, therefore, more than doubtful whether the wasting is due to the local lesion wholly, or in the first instance. We must generalise beyond their limited and somewhat mechanical doctrines into the wider field of the law of nutrition of tissues in general, if we would have better views of the pathology and treatment of consumptive diseases. There are other physiognomical signs, as pallor, œdema, and local sweats, which I will examine at an early opportunity.—*Medical Times and Gazette.*

On Vaccination.

DURING the last few months we have had occasion frequently to allude to the subject of vaccination in the pages of the JOURNAL. The recent epidemic of small pox, and the pretty general recourse that has been had to re-vacccination, together with the occurrence of a number of deaths following the operation in Sacramento city, has naturally made it an interesting subject to the members of the profession, and even the public in this State.

In Europe, attention has been more particularly attracted to it by the occurrence, at Rivalta, a small village in Italy, of a number of cases of what was supposed to be syphilitic infection, as the result of vaccination, and although it has not been satisfactorily proved that these cases were what they at first were reported to be, yet the discussion they have given rise to in Europe, and also in America, can we think leave no doubt on any unprejudiced mind, that vaccine matter taken from a child suffering under constitutional syphilis, is capable of communicating the disease to children vaccinated from it. This fact is only denied by those whose theoretical notions as to the impossibility of syphilis being communicated from any source except from a primary chancre, leads them to attempt to explain away the accumulated evidence in favor of the communicability of syphilis by vaccination; but, as the capability of secondary sores infecting the system is also to our mind proved beyond a doubt, this obstacle to the reception of the evidence of the communicability of syphilis by the vaccine lymph counts for nothing. In the fatal cases following vaccination that occurred at Sacramento, we have nothing of any scientific interest, except that they show the necessity for care in the selection of the lymph, as they were undoubtedly cases of animal poisoning. It would be interesting to ascertain if in the whole of the cases the lymph came from the same subject, and what were the peculiar antecedents that had imparted to it so poisonous a character.

After reviewing the arguments which have been brought forward in relation to the transmission of the syphilitic poison by vaccination, the editor of the *Medical Times and Gazette* observes:

We have thus endeavored fairly and impartially to review the arguments brought forward on either side of this interesting and most vital controversy. It will have been seen that we spare criticism to neither party. It remains for us now to sum up, and to place on record the conclusion to which our own mind has been led after full consideration of the evidence submitted to us in the published works of the writers we have quoted.

I. That there are several cases on record in which infecting chancre has succeeded the performance of the operation of vaccination, where the lymph has been taken from a normal pock upon the arm of a person the subject of constitutional syphilis. Considering the universality of the practice of vaccination at the present time, however, *such an occurrence must be regarded as extremely rare*—quite exceptional.

II. That in such cases the vaccine disease and the syphilis have run the distinct course which would be anticipated from the great difference in the period of incubation of the two diseases, the local manifestation of the latter awaiting the completion of the course of the vaccine.

III. That in all such cases the disease apparently imparted has been the "primary" disease, which has appeared at the spots punctured. In cases where secondary manifestations *alone* succeeded the vaccinia, the patient was syphilitic prior to the operation, the vaccine having acted merely in arousing the disease from latency.

IV. That it is probable, but not yet satisfactorily proved, that in some cases the transmission of the disease has been effected, as alleged, through the medium of the vaccine lymph as taken from a normal Jennerian vesicle, the virus of both diseases, vaccine and syphilis, being obtained at the same time from the same vesicle. In other instances it is possible that the virus of syphilis may have come accidentally into relation with the punctured spots.

V. That where numerous persons have been vaccinated from the same subject, those who were last vaccinated were mostly those who suffered from syphilis in the sequel.

VI. That the hypotheses advanced to explain the above fact,—namely, that in such cases blood had become mixed with the lymph, and that this was the immediate vehicle of the syphilitic virus, cannot be accepted until better evidence in its support shall be advanced than has yet been furnished.

VII. That two other hypotheses may be proposed, viz., (*a*) that the vaccine vesicle simply acts as the depository of syphilitic virus introduced into the original puncture at the time of vaccination; and (*b*) that the later vaccinations were productive of syphilis, in the instances of multiple vaccination adduced, on account of the depth at which the lymph was sought, or on account of an irritated condition brought about by manipulating the vesicle itself. Both of these hypotheses may be true in the same instance, or one in one instance and the other in another instance.

VIII. That the following practical rules flow from our consideration of the subject, and from the investigations of the several authors we have quoted:

1. Unless exceptionally, the lymph to be used for vaccination should not be taken from an adult person.
2. No child should, however apparently healthy, be used as a source of lymph until the expiration of at least three months from its birth.

3. Before taking the lymph, the mouth, and every part of the surface of the child, should be thoroughly examined for symptoms of constitutional syphilis, the slightest evidence of which should cause its rejection.
4. Enquiry should be made as to the health of the parents and nurse, and as to any previous disturbances in that of the child itself. A suspicion even of syphilitic taint should deter the Practitioner from using the lymph.
5. The lancets employed for vaccination should never be used for any other purpose, and, together with the hands of the operator, should be scrupulously clean and pure at the time of the operation. There can be no excuse for the neglect of this simple precaution.
6. The parents and nurse should be warned against the common and nasty practice of moistening the punctured spots with saliva under the pretence of allaying local irritation and of applying old linen to the spots at any time unless previously well washed.
7. No child should be vaccinated whose parents or nurse are known at the time to be the subject of any primary or secondary manifestations of syphilitic disease, unless removed for the time from the influence of their contagion.
8. That in no case should more lymph be taken from one vesicle than that which flows readily and spontaneously from the first and most superficial punctures made into it, and that no lymph should be used that is not perfectly clear and limpid.

With these provisional conclusions and prudential suggestions we leave the subject, in the hope that it will receive further investigation in the same impartial spirit in which we have striven to examine it, at the hands both of those who maintain and those who deny the transmission of syphilis from a contaminated to a healthy subject by the operation of vaccination. Meanwhile let us recollect that, even were all *absolutely proved* which is *asserted* respecting these *very rare* transmissions, vaccination would still remain one of the highest boons which a merciful Creator has ever permitted a single man to bestow upon his fellows. All which can possibly be said even then would be, that it is not exempt from those imperfections which inevitably attend every human invention. Chloroform has sometimes unexpectedly extinguished life, when all that has been looked for was a temporary oblivion to pain. Accidents, often fatal, continually happen in connexion with the use of opium, hydrocyanic acid, mercury, arsenic, and strychnia, which no human prescience could anticipate. Surgery has recorded deaths as the immediate result of the most trivial operations. Yet still, in hundreds of cases every day, the public necessity demands these operations to be performed, and these drugs to be administered. And after all, the benefits derived from these are mostly but loans for an hour. Vaccination is the heritage of a lifetime.

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The civil registration of births, marriages, and deaths in England and Wales, began on the 1st of July, 1837. By the end of last year, six month short of a quarter of a century, this astounding number of names had been registered and transmitted to Somerset House: Persons married, 7,086,700; births, 14,278,790; deaths, 9,605,536; in all, 30,971,026, or more than the entire population of the United Kingdom at the present day.—*Medical Times.*
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On the Treatment of Burns.

BY PROFESSOR ROSER.

In truth, there can scarcely be said to be any special treatment of burns, the loss of substance resulting from their influence being repaired by the same processes as prevail after any other form of destruction of the cutaneous surface. Much depends upon the depth to which the injury has extended, for while a destroyed epidermis is rapidly reproduced, when the skin has suffered to a great depth, or throughout its entire substance, the reparation, after the separation of the mortified parts, may be very tedious, in consequence of the great loss of substance, or of the unsuitable character of the parts affected for cicatrical formation. The contraction after cicatrization is also often great, both from this loss of substance and from the position of the parts, as in the bend of the limbs, being favorable to such contractile action. It is, however, an error to suppose that greater contraction follows burns than takes place from similar loss of substance from other causes. When the skin has been destroyed only through a portion of its substance, this contraction is not observed, only smooth cicatrices analogous to those of small-pox being present.

Not only is the period required for reparation and cicatrization after burns dependent upon the depth to which the injury has extended, but it is still more so on the inflammation of the skin which it has given rise to. This may affect not only the part actually burnt, but the adjoining parts, and may give rise to a secondary destruction of the skin, or at all events obstinate suppuration, which will delay the healing process, this then assuming a remarkably chronic character. Although it is this last circumstance which by its complexity and its consequences chiefly renders our prognosis uncertain, yet the other point, the determination of the depth to which the burn has extended, is by no means always an easy matter at first, even for the most experienced observer.

When the epidermis is merely lost or raised up into bullæ, the treatment of burns is simple enough. The serum should be discharged from the bladders by small punctures, without removing the epidermis. The necessity of covering the exposed nervous papillæ explains the success of various empirical applications; and even the solution of nitrate of silver acts only in this way. The exposed cutis becomes covered with a thin layer of gelatinizing albumen, and the deposit which ensues upon the application of the nitrate solution produces a protective crust. Lead and chalk water act in the same way, and cotton wool, the most suitable and simplest of all dressings, thus protects the exposed parts from the action of oxygen, and from mechanical contacts.

After two or three days, the physiological condition of the parts is different, the exposed papillæ having, in consequence of a growth of cells and vessels, become covered with a protective covering. The excessive sensibility has diminished, suppuration may have occurred, and perhaps here and there, deeper penetrating inflammatory action has been set up. We have now to seek whether we can moderate this inflammatory action, and favor the formation of epidermis. But, in fact, we can do little in the matter. If the injury is superficial, the healing will soon take place, under the use of the most different and sometimes absurd means; while if the inflammation has penetrated deeply, do what we will, the cure will be slower. We may resort, according to circumstances, to various antiphlogistic applications. When the mortification of the skin is only superficial, it is quickly thrown off, leaving a retiform granulating surface, and art has here little to do besides protecting the parts from injury. When the mortification extends deeper, we have no specific means for hastening the suppuration of parts which must precede separation. Such separation is a physiological process, and our intervention is limited to the prevention of its being obstructed. But the separation having taken place, have we any means of hastening the growth of granulations or of suppressing them when too luxurious? Physiology and clinical experience alike declare that nothing need be done. The granulations, if too prominent, will afterwards recede without the aid of caustic; and the smoothest cicatrices will be found in those cases in which least interference has taken place. When, however, the wound is advancing towards cicatrization, the condensation of the connective tissue, and its covering with epidermis, are much favored by a protective covering of adhesive plaster.

In the extremest degree of burns, when the skin is destroyed throughout its entire substance, we have to do with a condition of great surgical importance, cicatricial contraction, which although of the highest utility in lessening the surface of the wound in some cases, proves in others the most serious detriment. The employment of adhesive plaster is of great service in regulating the contractile power of the cicatrix. Thus, suppose a longitudinal loss of substance on the anterior surface of the index finger exists, there is no better means of regulating the direction of the cicatrix which will ensue, than surrounding the whole finger with small strips of plaster. These act in three ways. 1. The circular application displaces the skin from left to right, and favors the formation of the cicatrix in a transverse direction, in which no contraction can occur. 2. Contraction in the longitudinal direction is also prevented by the finger being kept stiffly bound up, so that its flexure is difficult. 3. The plaster exerts a very decided influence in preventing or remedying that projection of the cicatrix which is so remarkable after longitudinal loss of substance at the bend of joints and in the neck. In the same manner, in various parts of the body, we may obtain from the use of plaster beneficial effects which no other means will furnish. So also the contractions supervening on burns which have been improperly treated, are so easily, rapidly, and completely remedied by the methodical application of plaster, that the cases must be seen to obtain belief. Most aggravated cases, which those unacquainted with the simpler means would suppose to be amenable only to the knife, and others for which this has been in vain resorted to, have readily yielded to the application of plaster. It was Mr. Tamplin who first drew attention to this mode of treatment, and Professor Roser's experience has amply confirmed the truth of his statements. He has been quite astonished at the success which attends the treatment of the worst cases of contraction of the fingers. The plan consists essentially in surrounding the part with small strips of plaster, and making counter-pressure at the contracted flexures by means of small balls of cotton wool.—*British and Foreign Medico-Chiurgical Review.*

By order of Gen. Brown, commanding in New York Harbor, Fort Wood will be exclusively devoted to hospital purposes, and is placed under the direction of Surgeon Sattlerlee. All sick and wounded soldiers arriving at Jersey City will be immediatly transported to Fort Wood, whence they will be disposed of by being assigned to hospitals, turned over to State agents, or sent to their homes, or to Fort Hamilton, as may be directed by Surgeon Sloan.—*American Medical Times.*

Neglect of the Wounded on the Battle-Field.

AMONG the many sad realities of war, none is more sad than that of the frequent neglect of the wounded on the battle-field. The causes of this neglect are various. The rage of battle, and the varying fortunes of war, by which the battle-ground is sometimes held alternately by one and the other of the opposing forces, and the consequent impossibility of either securing and caring for all the wounded, is one. But there is another cause, which might often be provided against where great battles are impending, and that is, an insufficient supply of surgical aid appliances. The surgical corps of an army, while equal to any ordinary emergencies, is not equal to the demands of a great battle; consequently, at such times, the wounded are frequently left to suffer and die for lack of a little timely aid, which might easily have been rendered by a surgeon, or even an intelligent nurse.

For some time arrangements have been made by which a large number of surgeons are to be summoned from this and the contiguous States, to aid in caring for the wounded in the impending battle between the two armies of the Potomac. It is anticipated that this, when it occurs, will be a terrible and decisive battle, and, of course, there is expected to be a vast amount of surgery to perform. It is to be hoped that, when the battle does take place, the surgeons will have the opportunity of being on the spot *at the time*, and not have from one to three days' journey to take after it occurs.

Besides the positive neglect of the wounded in the circumstances referred to above, needless operations are sometimes performed by surgeons, in the hurry and excitement that ensue. The great pressure of business prevents his exercising that coolness and judgment which is necessary to a proper performance of his duties. We lately heard of an instance where an arm was amputated on the battle-field, and a subsequent dissection showed that the ball passed *between* the bones of the arm without in the least injuring either. The importance of life and limb should insure the utmost deliberation in the performance of operations after battles; and to this end, there should always be an adequate surgical force close at hand in all cases of impending battles!

Our army at the battle near Pittsburg Landing, Tennessee, seems, in many respects, to have been taken completely by surprise; but in none more than the very inadequate provision made for the wounded when a battle did occur. What were 80,000 men there for, within a few miles of an enemy of equal or superior numbers, but to fight? And yet, when the day of battle came—the most severely-contested and extensive, probably, that was ever fought on this continent—surgeons, nurses, and hospital stores had to be sent all the way from Cincinnati, Louisville, and St. Louis! Surely, when two such vast armies were facing each other, it was a dictate alike of prudence and humanity to have some adequate provision for the care of those heroes who should fall in the service of their country.

This battle occurred on the sixth and seventh of April. On the twelfth, a correspondent of a Western paper writes as follows:—

"The horror of horrors connected with this battle, is the treatment of the wounded. In the first place, there were poor facilities for treating them; and in the second place, there were not a fifth enough surgeons to attend to them. I would gladly draw a veil over the horrors on this point, but duty to our gallant volunteers demands that the truth be told. A large number of the wounded had crawled or been carried to the bluff opposite the landing on Sunday and Monday. Some found the shelter of tents, but others lay out in the open air. There those men lay, without a surgeon or attendant, without a mouthful to eat or drink, until Wednesday morning.

"They groaned and died with no one near to pity them, and the dead and the dying lay there together. On Wednesday morning one surgeon was sent to them, and one attendant with hard crackers and water! And that was their treatment until they either died or were conveyed to one of the boats which presently came to the relief of the wounded.

"At present, nearly a week after the battle, many of the wounded are not fully cared for. They are lying about in tents, upon straw, with no nourishment, and exposed to the weather. Several boat loads have been shipped away; but still many, very many, are here. I now write in the cabin of the Tycoon, with four rows of them in front of me.

"Our boat, the first one of the Cincinnati Sanitary Commission, arrived at three o'clock. By eight o'clock her cabin, her guards, and her decks were filled with the wounded. How thankful the poor fellows were when laid on soft beds, between clean sheets, and stimulated by nourishing diet! They forgot their wounds, their pains and hurts, and laid down and sweetly slept."

We trust that the commanding generals will see to it, as Gen. McClellan has done, in the Army of the Potomac, that ample provision is made for surgical aid and appliances for the wounded in any future battle that may occur. —*Medical and Surgical Reporter.*

Red Tape.

WE copy from the *American Medical Times* the following sad remarks on the unnecessary sufferings inflicted on our brave soldiers, when wounded in fighting the battles of their country:

"But when we pass from the free, spontaneous activity of our volunteer organizations to the sphere of offical duties, we pass, as it were, from the tropical to the polar regions. All is now formality and frigidity. If there is a heart to feel, the features are stiffened, and cannot relax with sympathy; the hand is paralysed, and can give no aid. The power to relieve human sufferings, sorrow, and death, are idle incentives to exertion. The official moves in a circle, his feet bound, and his eyes blindfolded. He sees nothing, hears nothing, knows nothing beyond the limits of the official seat on which he has grown callous by long and undisturbed sitting. Red tape, official routine, dull and insensible formalism, are the curse of our Government, and but for the generous activity of voluntary societies, would be the ruin of our armies. From every quarter we hear the same universal complaint of want of preparation, of tardiness to meet the exigencies of battles, and in consequence, of the sacrifice of human life, with a vast amount of needless suffering. The horrors of the battle-fields of Bull Run, Fort Donaldson, Pittsburgh Landing, Williamsburgh, etc., can never be written, and yet all occurred under circumstances which allowed more or less complete preparation. The battle of Bull Run took place under the immediate inspection of the official head of the Medical Bureau; it was planned weeks beforehand, and admitted the most ample medical provision; yet the nation has not and never will cease to thrill with horror at the mention of its name, and the recollections of the terrible sufferings which followed the disaster. At Fort Donaldson the poor sufferers remained for days uncared for, lying on the snow; not because succor was not at hand, for private bounty had furnished an ample supply and freely offered it; but because an official, rejoicing in the glittering bauble "U. S.," could not unwind the red-tape which bound his official legs, in less than 48 to 60 hours. Pittsburgh Landing found the same army utterly unprepared in its medical department for battle, and the first assistance that reached the sufferers came from Chicago, hundreds of miles distant, by private hands, after the news of the battle was received. Here was exhibited "blood-red tape" in its brightest colors. Tardiness and tedious formality marked every movement for days, while hundreds of wounded were weltering in their blood, unable to move a step from the spot where they fell. The recent battle of Williamsburgh was but a repetition of the same scenes, with all their sad and harrowing consequences. The wounded were left unprovided with attendants, shelter, or means of transportation, except of the rudest character. The principal provisions for the immediate care of the sick and wounded were, as in nearly every instance, made by the Sanitary Commission or charitable associations."

CAUSE AND CURE OF TAPE-WORM.—In his clinique at the Queen's Hospital, Dr. Fleming had frequently made the cause and cure of tape-worm the subject of clinical remark. This affection prevails to a wide extent in Birmingham, and is often seen in its more severe forms among the out-patients. As compared with Edinburgh, Dr. Fleming observes, that the greater frequency and severity of the disease are very marked. The patients may often be recognized on entering the consultation-room by their worn, vacant aspect, —their trembling gait and hands, staring eyes, and hesitating manner. Many suffer for years, with alternate periods of aggravation and improvement. Of the relation of cause and effect between the measle of the pig, or *cysticercus cellulosus*, and tape-worm, this town affords ample evidence. Dr. Fleming has ascertained that large quantities of measly pork are sold and used as food in Birmingham. It is not exposed for sale in the public markets, but it is disposed of privately, and, doubtless, much of it is employed in the manufacture of sausages. These are made use of to a large extent by the working classes, and are frequently eaten imperfectly cooked or nearly raw. Dr. Fleming and Mr. Lloyd have found portions of the "measle" in the sausages, with the microscope. Although the worm must be for the most part destroyed by the mincing, it may sometimes escape sufficiently intact to renew its life in an unhappy artisan.

Dr. Fleming has made comparative trials of several vermicides in the tape-worm; among others, of male fern, kamala, koosso, and spigelia. All are useful, but Dr. Fleming finds the first to be the most efficient and the safest. He gives it thus: ℞ Ol. filicis, ʒj; mist. acaciæ, ℥ss. M. ft. haust. To be mixed with one ounce and a half of sweet milk and taken at bedtime. The patient must omit the dinner and evening meal of that day. Taken thus, on an empty stomach, the mixture is carried speedily into the intestines, to feed, and, at the same time, poison the hungry parasite that nestles there. Milk is the favorite food of the worm. A large experience leaves no doubt of the great efficiency of this medication. In 1857, Dr. Fleming obtained a supply of the kalama from Dr. Anderson, of the H.E.I.C.S., and was one of the first to use that drug in this country. As a worm-killer, it is often very efficacious, but less so than the male fern; while its action on the bowels and secondary depression of the system are often unduly severe.—*Medical and Surgical Reporter, from Medical Times and Gazette.*

SURGEON W. S. KING, late Medical Director of General Banks's corps, has been detached and placed in charge of hospitals in Philadelphia.

REVIEWS.

A PRACTICAL GUIDE TO THE STUDY OF THE DISEASES OF THE EYE—THEIR MEDICAL AND SURGICAL TREATMENT. By Henry W. Williams, M. D. Boston: Ticknor & Field. San Francisco: Messrs. A. Roman & Co., 417 and 419 Montgomery street.

THIS book of Dr. Williams is eminently what it purports to be, "A Practical Guide to the Study of the Diseases of the Eye," and in so far we congratulate the profession on having another work published in this country, where simplicity, both in nomenclature and in treatment, has given place to the pseudo-classical barbarisms and heroic formula of older authors. The other work to which we allude, is "Dixon's Treatise on Diseases of the Eye," a re-print of which was issued last year, and which is so analogous in its arrangements and contents with that of Dr. Williams, that it probably suggested to him the idea of his work. There is, however, plenty of room for two works on this subject, even though they may closely resemble each other, as the progress that has been made in the pathology and treatment of diseases of the eye, during the last few years, has rendered the greater number of the older treatises almost obsolete. In this, as in other departments of medical science, progress has been marked by simplification. As an improved pathology more clearly defines and limits the objects to be attained by treatment, so does that treatment become more definite and more rational. Instead of the thousand and one collyria salves and powders of the old ophthalmic pharmacopœas, (for the oculists almost arrogated a pharmacopœia to themselves,) we have now the diseases of the eye treated on the same principles, and with the same means, as diseases of analogous tissues in other parts of the body, and although the importance of the organ, the peculiarities of its anatomical structure, and the delicacy of the operations of which it is the seat, will always render the practice of ophthalmic surgery more or less a speciality in the capital cities, yet a more rational pathology, and more simplified methods of treatment, will enable the well-educated physician to correctly diagnose, and successfully treat, by far the larger number of diseases of the eye, with far more certainty and satisfaction than when the simplest inflammation of the lacchrymal sacks presented itself to him as a *dacryocistitis*, and inflammation of the retina as an *amphiblestroiditis*. It is possible that a rose "by any other name will smell as sweet," but we think to the generality of practitioners, a retinitis would be an easier thing to comprehend than the above hard word. Fortunately, Dr. Williams has given a pretty complete treatise on diseases of the eye, without finding it necessary to employ many words over four syllables, and we can strongly recommend the work as one which should be in the library of every practitioner. At the same time while we recommend it as one of the best treatises on the subject that has yet been published, we think it right to point out some errors into which he has been led, apparently by too great a striving after simplicity. As regards the diseases of the conjunctiva, the whole of his remarks we consider good, although he seems to have too great a horror of nitrate of silver as an ingredient for eye-water. We regard it as one of the most useful applications in purulent ophthalmia, nor have we ever seen a case in which its judicious use was followed by permanent discoloration. We would here interpose a caution which we have not seen yet alluded to in works on eye diseases, viz: the necessity of gradually weakening the eye-washes we employ in chronic cases, as improvement advances, otherwise a wash that was useful in certain states of the conjunctiva, may be too strong as the membrane resumes its normal condition, and, if continued, may be the means of prolonging a diseased state of the eye. We have before had occasion to make an analogous observation as regards the use of injections in gonorrhœa, in which disease we have seen the inflammation kept up for weeks by the neglect of the above caution.

When treating of catarrhal conjunctivitis after it has assumed the form of granulated lids, the author in recommending a liberal diet makes the following observations:

> "We should allow the usual diet if the food is well digested, even making it more substantial where the state of the system is below par. Gruel and frequent laxatives are by no means adapted to keep up the health or spirits of a patient who is already sufficiently depressed by the prospect of blindness —and their use could only be justified by the results of experience, which, far from favoring, forbid them. On the other hand, absence from stimulants should be insisted on, unless when prescribed to obviate some low condition of the system."

The first part of this advice is all very well, but the last sentence reveals, we think, the existence of an –ism indicating strongly the latitude in which it was written. When stimulants form part of the usual diet, as under the form of wine and ales, they do advantageously with a large portion of our population, we are sure that their discontinuance, because the lids are the seat of granulations, is anything but judicious. Coffee is far more likely to be injurious, and we are convinced that more mischief is produced by coffee than by wine and ale, particularly in chronic affections of the mucous membranes.

In attempting to simplify the diseases of the sclerotic, we consider our author has gone too far in not admiting a rheumatic form of inflammation of this membrane. We are certain we have seen cases in which the membrane was the seat of inflammation without the iris participating in the disease, and in which the inflammation suddenly disappeared on rheumatism of the joints coming on. The question is eminently a practical one, as our treatment of the disease must be entirely governed by our forming correct notions of its pathology. In the rheumatic form, colchicum, iodide of potass. and alkalies will speedily cure the disease, whilst in simple sclerotitis, they would not be of much service.

But we consider the gravest error in the work is his recommending the treatment of syphilitic iritis without mercury. We have never been an advocate for mercury. Many years since, when in charge of a hospital at St. Louis, the quantity of calomel consumed during three months was reduced from a pound and three-quarters, the usual quantity before we took charge, to three-quarters of an ounce, and of other mercurials in proportion; yet, notwithstanding our early and general scepticism in the use, or rather abuse of mercurials, there is one dogma of the ancient belief to which we have religiously adhered, and that is, the use of mercurials in the primary and earlier secondary forms of syphilitic disease. The recent advances that have been made in the pathology of these syphilitic diseases, has tended to confirm us in this belief, for whilst it has separated from this class of diseases some which had before been classed with them, and in which mercurials were not required, yet it has left the true infecting indurated chancre and its consequences, still more clearly defined as *the disease* against which mercury is the best remedy. Perhaps our author and the ultra-advanced one-idea school will be inclined to look down on such an assertion as a sign of old-fogyism—as an indication that the pharmaceutical cobwebs of the past have not been entirely removed from our brain. It may be so; but still, on the other hand, it is more than possible that he himself has only avoided Scylla to be engulphed by Charybdis. The testimony of the past, as far as we have been able to read it, is certainly against him; and even the most advanced teachers of the anti-mercurial, young-physic school, have not dared to push their scepticism so far as our author. In a work lately written by Dr. Habershon, one of the physicians of Guy's Hospital and Lecturer on Materia Medica, "On the injurious effects of mercury,"* he observes:

> "Whilst almost all, I believe, now acknowledge that the varied forms of syphilis may be cured without mercury, there are conditions both of primary and secondary disease in which it must be regarded as the most effectual means of freeing the system from the effects of the poison. Few who have seen a puny infant, the subject of congenital syphilis, lose its blotches, its constant snuffling, and regain a plump appearance very rapidly, after a few grains of mercury have been given, will doubt that mercury does in a very remarkable manner modify and control the syphilitic poison. Primary and secondary syphilitic ulcerations, disease of the bone and periosteum, as well as lichen, lepra, *iritis*, rheumatism, the epilepsy following diseased cerebral membranes, and other sequelæ of the same poison, are often checked in a similar manner."

We hope that in the next edition of the work, the following paragraph will be revised: "A large proportion of the cases of both rheumatic and syphilitic iritis can be safely, quickly, and pleasantly relieved without it (mercury), and with a more rapid recovery of perfect health than where it is given." If the word "syphilitic" were left out, we should cordially agree with the the observation.

The chapter on cataract contains nothing that is novel, but we are glad to see that our author speaks rather more respectfully of the old operation of couching, than has lately been the fashion. Extraction, undoubtedly, is the more brilliant operation of the two, and in those cases that are suited for it, furnishes the best results; but there is a large class of individuals whose general health is such that extensive wounds in the cornea do not readily heal, and in these the simpler operation promises the best chance of success. Amongst the natives of India, for example, extraction has furnished far less favorable results than reclination.

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* Habershon on the Injurious Effects of Mercury in the Treatment of Disease. London. 1860.

Want of space prevents us from discussing the author's account of the new operations that have been proposed for glaucoma and fistula lacrymalis. They are described in a plain and comprehensible manner, and so as to render the absence of plates less felt than in any treatise on diseases of the eye we have before met with.

In conclusion, we can conscientiously recommend the work to our readers as a valuable addition to their libraries. Amongst its other advantages, is the superior manner in which it has been got up, the paper and type being everything that can be desired.

ORDINANCE ESTABLISHING A BOARD OF HEALTH FOR THE CITY OF SACRAMENTO, with Constitution, &c., adopted by the Board.

WE have received a copy of the above from the Secretary, Dr. Logan, and we are glad to see that our neighbors are setting so good an example to our City authorities. We have insisted in another part of this number on the necessity for a Board of Health for this city, and we only hope that such a useful measure may not be longer postponed.

A MANUAL OF MEDICAL DIAGNOSIS. By A. W. Barclay, M. D. 2d American, from the 2d Revised London Edition. Philadelphia: Blanchard & Lea. San Francisco: A. Roman & Co.

A REVIEWER has little to say on a scientific work that has required a second edition to be issued within a year after the publication of the first, as was the case with Dr. Barclay's work in England; and it certainly speaks well for the progress of medical science in this country that a second edition has been called for here. The importance, as well as the difficulty of forming a correct diagnosis is becoming better appreciated with the progress of medical knowledge. The old routine of look at the tongue, feel the pulse, and prescribe a dose of blue pill is fortunately being superseded with every rational physician, by at least some more conscientious endeavors to define more closely the nature of the disease he has to treat. It is more particularly in an improved diagnosis of the different forms of disease that progress in our science has been marked, and no conscientious physician can avoid experiencing a degree of satisfaction when he feels that he has correctly spelt out from the various symptoms presented by a patient, the true nature of the disease he has to treat. Dr. Barclay's work is eminently calculated to assist us in this important task, and though addressed more particularly to the student, yet there are but few practitioners who may not consult its pages with advantage, and who will find it a valuable friend when they want to unravel any complicated case of disease.

On the Coagulation of Serous Effusions.

We translate from the *Institut* some interesting results that have lately been arrived at by Schmidt in regard to the formation of fibrin. It appears that when the serum of blood from which the fibrin has been removed is mixed with albuminous exudations from serous sacs, as with the fluid from the tunica vaginalis, the pericardium, or the pleura, a coagulum is formed which is in proportion to the amount of albumen contained in the fluid. In some fluid from a hydrocele containing 5·5 per cent. of albumen, and which did not manifest any sign of spontaneous coagulation, a firm coagulum was almost immediately formed on adding some serum from blood. The serum which has been pressed out from a clot, is more active than that which has been obtained by separating the fibrin by beating. Artificial coagulation is accelerated by heat, but the defibrinated blood retains much longer its power of producing coagulation when kept in a cool place, and in a vessel hermetically closed, than when exposed to the air and at a higher temperature. Serum deprived of blood corpuscles as perfectly as possible, is still capable of producing coagulation, but it is far less active than when it contains corpuscles. Blood crystals when added to serous fluids will produce coagulation. The crystals dissolve rapidly, and the liquor soon assumes a jelly-like consistence: when the clot has consolidated the fluid that separated from it can produce coagulation in a fresh portion of exudation.

These experiments are interesting, as pointing out new relations between albumen and fibrin, and also as indicating how little we really know about the most fundamental properties of even the more simple animal compounds.

Hydrophobia in France and Prussia.—In the hope of checking the prevalence of hydrophobia in France, an impost on dogs was imposed in 1855. The number of these animals did not, however, diminish much, their average number in Paris being about 60,000; and so far from that of the cases of hydrophobia having decreased, they have not been so numerous during twenty years as for the last three years. The most effectual means of preventing dogs biting, 'and thereby communicating the disease, seems to be muzzling them; and M. Renault, the distinguished veterinarian, in a communication to the Academy of Sciences, states that the assertion that muzzling dogs, by the constraint it produces, is itself a cause of rabies, is utterly unsupported by any well established facts. On the other hand, he points out the results which have been obtained in Berlin from a general and permanent muzzling of all dogs not tied up at home. A tax had already been imposed with no diminution of the number of cases of hydrophobia, when in 1854 the muzzling was ordered and strictly executed upon all dogs not tied up. From the year 1845 to 1853 inclusive, 278 cases of rabies (nearly 28 per annum) were verified at the Berlin Veterinary School; while from 1854 to 1861 inclusive, only nine cases have occurred, and none of these since 1856. The conclusions which M. Renault draws from these facts are, that spontaneous rabies is of very rare occurrence, and that permanent and general muzzling of dogs is a highly efficacious means of preventing the propagation of the disease.—*Med. Times and Gazette.*

EDITOR'S TABLE.

THERE are few cities in the world so large as San Francisco where some municipal regulations do not exist with the object of protecting the citizen against disease. It has been clearly shown that a large class of diseases have their origin in filth, in imperfect drainage, in overcrowding of lodging-houses—in fact, in causes which are perfectly under the control of municipal authority; and, again, there are other diseases the invasion of which may probably be prevented, or at least their ravages very much restricted by a proper sanitary supervision of the city.

Not only in Europe, but in every town of importance in the United State, the inhabitants have shown themselves willing to accept the teachings of sanitary science, and have found it to their advantage to pass such laws and regulations as shall tend to preserve the health of the community, appointing proper officers to see them efficiently carried out. It has been found even in communities where people are not so intently occupied in their own business as they are in this country, that it does not do to leave to individuals the care of what concerns the general health. Although each may appear to be so directly interested, yet either from ignorance or carelessness, a large portion of the population would not take the trouble to remove many sources of disease, which not only threaten their own health, but also endanger that of their neighbors. As this carelessness and ignorance exist principally amongst the poorer classes of the population, who when sick are chargeable to the community for their relief, it has been found both more economical, as well as more humane, to adopt proper regulations for the prevention of disease, than to have to cure it when it has already attacked its victims. But it is not merely the poorer classes who are likely to suffer from this ignoring of our municipal duties as regards sanitary measures, for the germs of disease when once started do not confine themselves to the locality in which they have originated, and it is impossible to say where the poison generated in some obscure haunt of poverty and filth, may show its virulence.

It possibly might be objected, that our position, the nature of the soil, and our constant winds, will exempt us from the ills inflicted on other communities by the neglect of sanitary regulations, but at least as far as our soil is concerned, it is far from being one that is conducive to health. It has been found that absorbing soils collect, as it were, all the filth, which under certain atmospheric conditions undergoes decomposition, becoming a fertile source of disease. Besides, placed as we are in communication with all parts of the world, and being the centre of a large interior population, we are at all times liable to be receiving the germs of contagious diseases from without, which, if not checked in time, may commit sad havoc amongst our population. The fact that extensive public works are now being undertaken for the improvement of the city is also an additional reason that we should have a Health Officer, to whom the authorities might apply for advice on points more directly connected with their operation, as means of improving public health, or whose suggestions they might follow with the effect of saving a large future outlay.

For these reasons, and for many others we could assign, we think the city authorities ought to appoint a Health Officer. We know not how soon an epidemic may be amongst us, already certain threatening symptoms are showing themselves, and it is the duty of rational beings not to be taken unprepared. Sacramento has already moved in the matter, having appointed a Board of Health, and we trust our Municipal Government will not delay following their example.

We would call the attention of our readers to another of the Lectures on the Physiognomy of Disease, by Dr. Laycock, which we have reprinted entire in our pages. It might have been thought that after all that has been written on the subject, the physiognomical diagnosis of consumption was indeed a thread-bare theme; yet a careful perusal of these lectures will prove how true it is, "*that the pathology of pulmonary phthisis is more or less imperfect on almost every point.*" It has been too much the practice of the profession to look upon phthisis with far too fatalistic a spirit, to regard it as a disease which was beyond the power of our art, and to watch it bearing its victims to the grave, as we would watch the devastations of an earthquake, with a sense of utter helplessness. Not but there have been efforts made from time to time, to check the progress of the destroyer, and many a specific has been offered to the public against the ravages of the disease; but, unfortunately, up to recent times, these efforts have not been directed by rational views as to the pathology of consumption, and the promised specifics have, in almost every instance, been vaunted in order rather to fill the pockets of unworthy members of the profession, or uneducated charlatans, than with the serious belief that they would arrest the disease. During the last few years, a well-founded belief in the curability of the disease has been, we might say, forced on the minds of most reflecting physicians; and the increased impetus which has thus been given to its philosophical investigation, has already resulted in more correct views as regards its pathology, and has suggested far more rational methods of treatment. Still we are making but slow progress in our knowledge of the disease, so inveterate was the opinion of its incurability, so sterile had been the field against all efforts to extract anything useful from it. Another reason that has powerfully tended to retard our knowledge of the disease is, that it is one that cannot be studied with any advantage in a hospital. The profession has been so accustomed to look up to our hospital physicians for instruction in all that relates to the pathology and treatment of disease, and the field of observation enjoyed by any individual in private practice is so limited, in comparison with that afforded by our large hospitals, that great weight has justly been attached to the observations of our hospital physicians. Nor is this anything but right, as regards the majority of diseases; but it is fatally wrong as regards phthisis. To the phthisical patient, the most a hospital can afford is but an easier descent to the tomb, and the only investigation as regards the disease that can be made within its walls, are, at most, the influence of some few remedies in retarding the progress of the disease, and alleviating its distressing symptoms. If we want to treat phthisis with any rational hope of curing it, it is not within the walls of a hospital that our investigations must be made. We must conduct our patients out into our mountains, teach them to live out in the open air, where they can inhale the uncontaminated breath of Heaven, diluted or rarified to a degree, that it no longer acts as an irritant to their diseased lungs. These are the only conditions under which we can watch the cure of phthisis, and under such conditions only can we hope radically to cure the disease. We have, however, pointed out, in former numbers of the JOURNAL, our experience in the treatment of the disease by an out-of-door life, and this experience enables to remove a large number of the cases of phthisis from *among the incurable diseases.*

The interesting observations of Dr. Laycock, tending as they do to point out what are important elements in the pathology of the disease, as it presents itself under its different forms, we consider by far the most valuable contributions that have yet been made to our knowledge of phthisis, and will enable us to undertake its treatment, in the curable stage, with far greater discrimination as to the agents we should employ.

HEALTH OF SAN FRANCISCO.—During the last month there were 160 interments in the different cemeteries of the city, showing a slight increase of the mortality over that of the preceding month, in which the interments were 152. This increased mortality has been principally amongst children, and caused, we believe, by the prevalence of diarrhœa. This disease has affected a large portion of our population, adults as well as children, and although we have not met with any cases amongst the adult population which did not yield to treatment, yet the symptoms presented in a large proportion of the cases show the prevalence of an atmospheric influence which on three occasions we have known to precede a severer epidemic form of the disease. We have also ascertained that an analogous form of disease is prevailing at Sacramento, showing more clearly its connection with some wide-spread atmospheric influence independent of temperature or other meteorological conditions of the atmosphere. Under these circumstances, we would advise our citizens to be cautious in the use of unripe fruit, cucumbers, or other vegetables that are difficult of digestion. Good ripe fruit is a most wholesome article of diet—it is only that which is not fully matured or that has been kept too long that should be avoided.

We have alluded in another part of the present number to the propriety of our City authorities taking steps to inaugurate some general sanitary regulations for the preservation of the health of the city, and we trust that physicians will use their influence to forward so important a measure.

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late JOHN W. FRANCIS.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

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The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from eminent American Physicians and Surgeons. Edited by

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Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the SUMMARY OF MEDICAL SCIENCES will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "THE EPITOME"—and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. WELLS, M. D.—DEAR SIR: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage and can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE
Pacific Medical and Surgical Journal.

SELECTIONS.

On the Temperature, Urea, Chloride of Sodium, and Urinary Water in Scarlet Fever, and on a Cycle in Disease and Health.

BY SIDNEY RINGER, M. D.

THE observations were made on patients in the Hospital for Sick Children, under the care of Drs. West, Jenner and Hillier. Thirty cases are given. The temperature, taken several times during the day, is given in charts. The urea and chloride of sodium were estimated daily by Liebig's volumetric method. The observations extended over a variable time, in some cases till the forty-fifth day of the disease.

I. *On the Temperature.*

1. This fell, in the great majority of cases, on either the fifth, tenth, or fifteenth day of the disease.

2. When the temperature remained high till the fifteenth or twentieth day, a fall of variable intensity occurred, usually on each of the preceding fifth days—namely, the fifth, tenth and fifteenth. The temperature after each fall in some cases remained, during the subsequent five days, at the same point reached on the preceding fifth day; in other cases it rose again, reaching during the second or third five days a point as high as it did during the first five.

4. Each fall of the temperature is accompanied by an improvement in the state of the patient, which remains permanent when the temperature does not again rise.

4. Of seventeen cases that came early under notice, the average maximum temperature was a little above 103°.

5. Subsequent to the great fall experienced on the fifth, tenth, or fifteenth day, the temperature often remained rather too high over a variable time, in some cases for fifteen days. The degree of elevation varied, in some cases being between 100° to 101,° but more frequently between 99° and 100°. This elevation of the temperature also usually experienced a fall on each fifth day.

6. This subsequent elevation of the temperature, if of any persistence, was coincident with a continuation of the lesions produced by the scarlet fever, as sore-throat, &c. It sometimes preceded an attack of Bright's disease.

7. At a variable point after the scarlet fever, another elevation of the temperature occurred, due either to Bright's disease, endocarditis, tuberculosis, or chicken-pox; in two cases, the cause could not be ascertained.

8. The date of the second elevation varied; thus, counting from the commencement of the scarlet fever, in albuminuria the mean of six cases gave the twenty-second day; in two cases in which the elevation was probably due to endocarditis, the elevation began on the eighth day; in one case of chicken-pox, it commenced on the sixth day; in one case of tuberculosis, on the ninth.

9. The duration of the elevation due to the above causes varied from two to thirteen days.

10. This subsequent elevation of the temperature due to intercurrent disease always fell either on a fifth day from its own commencement, or on a fifth day from the commencement of the scarlet fever.

11. Thus the temperature forms arcs of cycles, lasting in the majority of cases five days; this equality applies to the temperature of the scarlet fever, or of any subsequent intercurrent disease.

12. In severe cases the temperature remained at the same point throughout the day; in slighter cases it fell in the morning and rose during the day: this fall in the morning is one of the earliest signs of improvement.

13. The hour of the day at which the temperature reached its highest point varied greatly. It was most frequently at its highest at some time time between two P. M. and eight P. M.

II. *On the Urea.*

1. The urea appears to suffer no increase during the fever.

2. The amount of urea for many days after the decline of the fever is far below the amount normal to the patient.

3. From the above, the author thinks it probable that the kidney is affected from the commencement of the attack, and the elimination of the urea thus checked. In some of the cases the children were puffy about the face, without any blood or albumen occurring in the urine; this perhaps was caused by the retention of urea.

4. On the intercurrence of Bright's disease, the urea in some cases was greatly diminished; in other cases no diminution occurred.

III. *On the Chlorides.*

1. The chlorides were never found absent in any of the cases analyzed.

2. Their amount was always much diminished during the fever days.

3. After the fall of the temperature the chlorides increased gradually.

4. In one case in which Bright's disease supervened the chlorides were estimated: they suffered very little diminution.

IV. *On the Urinary Water.*

Often during the fever there is no diminution in the amount of urinary water; in some cases it is increased.

V. *On the Albumen in the Urine.*

1. The albumen appears at two different periods: (*a*) during the fever days; (*b*) later, during the non-fever days. Of 18 cases which were in the hospital for a considerable time, in 7 albumen appeared during the fever free days.

2. The time of its appearance varied from the ninth to the twenty-third day.

3. The duration of the albumen in the urine varied from three to forty-nine days.

4. There is no necessary connexion between the intensity of the inflammation (tested by the elevation of the temperature) and the duration of the albumen in the urine.

5. There is no necessary connexion between the intensity of the inflammation and the amount of albumen in the urine.

VI. *On Blood in the Urine.*

1. There may be an elevation of the temperature, due probably to inflammation of the kidney, without any blood in the urine.

2. In no cases did blood appear without previous elevation of the temperature.

3. In some cases the blood continued long after the fall of the temperature, and thus probably after the decline of the inflammation.

VII. *Relation between the Blood and Albumen in the Urine.*

1. A very large amount of albumen may occur in the urine without any blood.

2. Blood to a very large amount may occur in the urine with the slightest trace of albumen; and if the blood corpuscles be allowed to settle, the supernatant fluid may give no evidence of albumen.

These cases given were seldom dropsical; they, however, often looked puffy in the face. In some cases the second elevation of the temperature due to Bright's disease was not followed even by puffiness. In one case, the the patient was puffy, without any other indication of Bright's disease.

VIII. *On a Cycle in Disease.*

In the cases given the temperature did not run an equable course, neither remaining at the same temperature throughout; but formed cycles, composed of a variable number of days, each cycle, however, being composed of the same number of days in the same patient. The cycles in the great majority of cases were composed of five days.—*London Lancet.*

* * *

ARSENIC AND SESQUICARBONATE OF AMMONIA IN AGUE.—As a substitute for the preparations of cinchona in the treatment of ague, says Dr. Adamson, I doubt if there be any remedy more efficacious and trustworthy than the combined use of sesquicarbonate of ammonia and liquor arsenicalis. In ten cases, all adult males, treated solely with this remedy, it proved uniformly successful. Thus: in one case only—a quotidian—was its administration followed by two paroxysms; in seven other cases (one quotidian and six quartan) only one paroxysm subsequently recurred; and not one in the remaining two cases (one tertian and one quartan). As yet I have had opportunity of using these combined drugs in only two other cases of adult males; but, as both these cases had long resisted quinine, though readily yielding to the ammonia and arsenic, I do not include them in the above list. The quantity of the sesquicarbonate usually given was five grains, dissolved in one ounce of water, with the addition of five minims of liquor arsenicalis; this dose being repeated *every two or three hours*, according to the frequency of the paroxysms. In no case did any inconvenience result, save some degree of griping in one patient, in whom, as well as in three others, there was slight itching about the eyelids, and this was not spontaneously complained of but in two cases. Doubtless the real anti-periodic power is to be ascribed to the arsenic, which the sesquicarbonate, while exaggerating perhaps its efficacy, renders more easily tolerated by the system.—*Edinburgh Medical Journal.*

Influence of Railway Travelling upon Public Health.

Extract from Report of British Commission.

PHYSIOLOGICAL INFLUENCE.—*Habitual Travelling.*—In considering the physiological influence of railway travelling upon public health, it is necessary to enlarge the sphere of observation beyond the mere act of travelling, and to regard some of the accessory conditions which surround it. Modern society has seized the occasion offered by increased facilities for business communication, and multiplied its means of pleasure and chances of recreation. Habitual railway travellers are found not only amongst those who move from place to place, urged by some necessary impulse; but there is included amongst them a numerous class of season-ticket holders who, from considerations of health, pleasure or economy, locate their families at a distance, and daily travel by train to some great centre; again seeking a country home in the evening. This most important class of travellers is especially subject to the extraneous influence alluded to. They are under the necessity of twice daily "catching the train;" and to a certain extent all their actions prior to departure in the morning and afternoon are influenced by the pervading sense of this anxiety. We will quote here a graphic communication on this matter from Dr. Forbes Winslow:

Dr. F. Winslow on extraneous sources of anxiety and fatigue.—"I have, like many others, during the summer season, removed my family for a period to a watering-place some fifty miles from London, and travelled to and fro night and morning by express train. I have been convinced that the advantage of sleeping by the sea-side, and of an occasional day of rest there, was fully counterbalanced by the fatigue and wear and tear of mind and body incidental to daily journeys over this considerable distance. I went to bed at night conscious that I must rise at a given and somewhat early hour, or miss my train. I am sure that this does not render sleep more sound and refreshing; and every one sleeps best on the Saturday night, when this disturbing element does not exist—since the next is the day of rest. In the same way breakfast is eaten with this necessity of being in time still on one's mind. Then, like every one else, I had to get the cab or carriage and go down to the station; to scramble for the morning paper and get a seat. Then comes the long journey, with all its fatiguing accompaniments. Finally, one has to get to one's residence; this process, or something like it, *mutatis mutandis*, being repeated twice a day. I refer to those separate details because it is in analyzing the general series of phenomena that I am able to explain the fatiguing effects, mental and physical, of constant railway travelling."

Concurrent testimony of other Physicians.—The frequent ill-effects of this anxiety and pre-occupation are insisted on in the communications made to us by many physicians of great experience. They have a most important bearing in relation to certain diseases which will be elucidated in a subsequent section. Dr. Brown-Sequard observes, that the anxiety is so predominant in many otherwise healthy constitutions, that it produces often a practical incapacity for habitual travelling; and must evidently, when it falls short of this, frequently be injurious. When living near a railway station, he observed that the frequent excitement, and constant hurry and anxiety which he witnessed on the part of passengers arriving, impressed itself on his mind as a mischievous circumstance. In certain unhealthy conditions of the heart it has many times proved fatal.

But the actual fatigue and physical effects of the journey chiefly influence the mass; phlegmatic and robust-minded persons are little likely to allow themselves to be mentally agitated by the necessity for catching trains or the like. But let it here be noted, that a great number of the season-ticket travellers are men past the early vigor of life—time-worn by the continued cares of business during long residence in towns, and whom a more or less tardy success in the battle of life has enabled to afford for their families the salutary change of country or sea-side residence, or whom some warning of failing health compels to seek for themselves such a transformed version of the *rus in urbe*. This is a sort of constitution not able to bear unnecessary strain and fatigue.

We will next consider what are the conditions inducing functional change to which travellers are subjected in a railway train, proceeding at ordinary speed.

Effects on the muscular system.—The immediate effect of being placed in a vehicle subjected to rapid, short vibrations and oscillations, as already detailed, is that a considerable number of muscles are called into action, and maintained in a condition of alternating contractile effort throughout the whole journey. The tendency of each movement is to produce more or less motion in the twenty-four pieces of which the spine is made up. These movements are counteracted, and the erect position of the body is maintained, by the adaptive construction of that complex muscular system attached to those osseous pieces. The more violent movements of the carriage call into action the various sets of muscles in the back and chest; and it is only by an incessantly varying play of contraction and relaxation that the body is preserved in a tolerable state of equilibrium, and that the passenger combats with success the tendency to be shaken into a most pleasing variety of shapes and positions. The head is especially thus affected, being so balanced on the spine as to have a tendency to fall forward. The frequency, rapidity, and peculiar abruptness of the motion of the railway carriage keep thus a constant strain on the muscles; and to this must be ascribed a part of that sense of bodily fatigue, almost amounting to soreness, which is felt after a long journey.

Influence on the cerebral and spinal centres.—The hollow cavities of the spine and cranium, thus partially steadied, by the muscles attached to them, contain the great nervous centres, to which concussion of any kind is so peculiarly hurtful that they are naturally cushioned on exquisitely-devised water-beds, or are slung by fibrous ligaments, which have the effect of deadening the shocks of ordinary movements. It is unnecessary to dwell upon the injurious effects of commotion to the brain or spinal system of nerves. Cerebral or spinal concussions, in their highest degree, annihilate the functions of those organs. In the milder forms they lead up to disease which, remaining for a long time latent, may still end in paralysis.

The jolting of a railway carriage is a series of small and rapid concussions; and it is worthy to be noted that these increase in proportion to the rate of speed, and that most of the trains by which season-ticket holders travel are express. It may therefore be judged, so far as anatomical grounds are concerned, how prejudical must be the influence of reiteral concussions.

The seats of carriages.—The well-padded and springy seats of first-class carriages do much to obviate the mischief of those concussions, for those who can afford to travel by them; and it has been mentioned to us by a surgeon who, in a great manufacturing centre, is connected officially with several railway companies, that he has observed that men compelled to travel frequently by rail are fully sensible of the practical advantage thus offered by the padded or cushioned seats, and never, if they can avoid it, travel on any other. We believe that commercial travellers, as a rule occupy first-class carriages, not as a luxury, but as a necessity of their nomadic life. But however this may be, it is right to notice a remarkable fact in this relation on different classes of railway travellers. In 1849 the third-class passengers formed about 15 per cent. of the whole number; in 1860 they formed more than 57 per cent. It therefore became a matter of simple justice for the railway companies to consider the health of this important class of travellers. In condemning them to sit on hard wooden benches, which transmit fully the shocks incidental to the movement of the carriage, they submit them unnecessarily to an acknowledged source of evil influence on the health.

The influence of railway travelling upon the brain cannot, however, be measured solely by estimating the character and extent of the concussions to which it is subjected. The brain is not only affected by the mind, but also through the avenues of the eye and ear; and by the excitement of the respiratory and circulatory systems.

Of mental influences.—The mental condition of passengers by train is commonly, perhaps, sufficiently placid and unconcerned; but several eminently careful observers have, in their communications, alluded to an often experienced condition of uneasiness, scarcely amounting to actual fear, which pervades the generality of travellers by rail. The possibility of collision is constantly present to such persons. And every one knows how, if by chance a train stop at some unusual place, or if the pace be slackened, or the whistle sound its shrill alarm, a head is projected from nearly every window, and anxious eyes are on the look-out for signs of danger. So, too, the frequent lateness of trains and the bad time which they keep, are causes of anxiety. The pace also prevents the traveller from observing natural objects and sites of interest on the road, which made coach travelling a source of mental relaxation and pastime. The passenger is forced into subjective sources of mental activity; and where the tendency to excitement exists, this also, *quantum valeat,* must be esteemed an undesirable feature belonging to this manner of locomotion.

Effects on the eyes.—Objects on the road are passed with such velocity that they only produce momentary impressions on the retina; and thus the visual powers are severely tried. The rapidity with which the brain is necessitated to take cognizance of the retinal impression of objects moving over the retina in railway travelling is productive of certain interesting physiological phemomena, to which we can only briefly allude. Sir David Brewster has touched upon some of them with the ability for which he is distinguished. In a paper read at the last meeting of the British Association, and which will doubtless be published in the forthcoming volume of the "Proceedings," this great physiologist showed that "when we look at the lines which stones, gravel, or other objects form in consequence of the deviation of their impressions on the retina, and quickly transfer the same lines further back, where the velocity is less, the stones or gravel or other objects would for an instant be distinctly seen, just as we see distinctly rapidly revolving objects in the dark when they are illuminated by an electric flash or the light of an exploded copper cap." This phenomenon may be explained by a remarkable and interesting law of compensation. The rapidity and variety of the impressions necessarily fatigue both the eye and the brain. The constantly varying distances at which the objects are placed involves an incessant shifting of the adaptive apparatus by which they are focused upon the retina; and the mental efforts by which the brain takes cognizance of them is scarcely less productive of cerebral wear because it is unconscious; for no fact in physiology is more clearly established than that excessive functional activity always implies destruction of material and organic change of substance. Dr. Budd, F. R. S., has directed our attention to the peculiarly dazzling effects of passing in rapid succession the white telegraph posts, from which the wires seem to fall and rise, appearing to the eye to undulate. When the traveller sets himself to read, he imposes yet further labor on the eye in tracing the shifting characters of his book or newspaper, and also on the brain. Especial notice is drawn to this point in an important communication which we have received, and shall hereafter publish in full, from Mr. White Cooper, surgeon-oculist to the Queen. Every one is conscious of the strain upon eyesight incidental to railway travelling and to reading in the train; but it is probable that few habitual travellers are sufficiently cautious in this matter, and that many only become wise by too tardy an interpretation of their personal experience.

Impressions through the ear.—The rattle and noise which accompany the progress of the train create an incessant vibration on the tympanum, and thus influence the brain through the nerve of hearing. Noise is conveyed by vibrations of the air; and hearing in the transmission to the brain, through the medium of the auditory nerve, of those measured vibrations which constitute special sounds. The habitual traveller is little mindful of it, and the brain of many persons is perfectly tolerant of the excitement. But this is an important item in the general cerebral impressions produced. Dr. Fuller of St. George's Hospital, in communicating his personal experience of the influence of habitual railway travelling, mentions a device adopted by him which furnished at once a test and remedy for this source of cerebral excitement. Surmising that some part of the headache and mental fatigue experienced was due to the rattle and noise, he filled each ear with a light plug of cotton-wool. In this way the vibrations of the air in the meatus was arrested, and relief is described as having been considerable.

Assailed through the eye and ear, and subject to concussions due to vertical movements and lateral oscillation communicated through the trunk, and actually transmitted by the bony walls of the head when it rests against the back of the carriage, the brain is apt to suffer certain physiological changes. Among the well-known effects are—occasional dizziness, headache, sickness, and mental fatigue.

Combined effects on the brain.—To these results each of the above causes may contribute something. The noise may be considered most influential in producing headache; but this may be aided by the impression of rapidly-passing objects on the eye, or by the efforts of reading. For nothing tends more certainly to produce congestion of the base of the brain than the forced fixation of the eyes upon a near objeet. This is evidenced by experiment, and explained by the connexion of the circulation of the eye with that of the brain, though the ophthalmic artery, springing from the circle of Willis. Some powerful illustrations of this fact are afforded in the phemomena of hypnotism and electro-biology, and of some of the so-called mesmeric phenomena, where sleep and the required changes of the cerebral circulation are physically produced by fixing the eye upon an adjacent shining body. The mere aspect of a swinging object sometimes suffices to produce sickness, as in the late celebrated Dr. Jas. Johnson; and so rapidly-passing objects may aid in the frequent production of nausea in the train. Probably the concussion incidental to the movement of the train is more potential in bringing about this effect. The influences on the respiration and circulation will hereafter be mentioned.

Any sudden alteration of the heart's action may aid in producing giddiness and dizziness, which are not always felt during the journey so strongly as after leaving the carriage. And it is when the circulation is returning to a more regular standard that temporary access of sickness and vertigo is often experienced. These symptoms have been especially noticed in the case of the travelling Post-office officials, as to whom Dr. Waller Lewis, the medical superintendent of the Post-office, has communicated to us a most valuable mass of information, which will appear in the third report.

Nausea and sickness.—The tendency to nausea sometimes felt by railway travellers, without any apparent complication of cerebral disturbance, is often due to jolting of the intestines and gall-bladder, stimulating the latter to discharge its contents into the stomach, and thus excite biliary sickness. Many cases have been communicated to us of sickness induced by railway travelling, and some persons are unable to undertake a journey without providing against this unpleasant affection. Bilious subjects Dr. Walter Lewis considers, from his experience, to be unfit for the travelling service, and he rejects such candidates for that employment.

The nervous influences.—In the valuable communications on the subject made to us by Dr. Brown-Sequard, the probable cause of sickness is explained by reference to the influence of the movements in a railway carriage on the phrenic, splanchnic, and vagus nerves. It is known by the experiments of several physiologists, that irritation of the vagus nerve produces vomiting; and the jolting of the stomach, separating it from the diaphragm and producing corresponding traction of the œsophagus, (which is attached to the diaphragm, when passing through that muscular septum,) is admitted by physiologists to afford the best explanation of the ordinary phenomena of sea-sickness. A second cause of vomiting, as shown by Luschka, is the irritation of the phrenic nerves, due to the shaking of the diaphragm. Dr. Brown-Sequard, in former publications, has already investigated this subject experimentally, and has not only given confirmation to these observations, but has carried them further; and the result of his experiments will serve to give the physiological explanation of the peculiar *faintness* always accompanying nausea arising from the movements of a ship or railway carriage. He has shown that irritation of the sympathetic nerve in the abdomen induces cardiac syncope by a reflex action, influencing the action of the heart through the impressions conveyed by the splanchnic nerves acting upon the vagus through the spinal cord and medulla oblongata. The reflex character of the phenomena can be demonstrated by dividing the vagus in animals, when the irritation of the sympathetic no longer produces this cessation of the heart's beat, or by the division of the spinal cord between the communication of the sympathetic and the origin of the vagus, when a similarly negative effect is produced. Thus the faintness which sometimes occurs to travellers in a railway carriage, and the sickness accompanied by faintness, equally find their true scientific explanation. Every one has observed the marble pallor which accompanies this nausea; it is simply the result of a true fainting of the heart always preceding this form of sickness. It is needless to insist upon the important application of this physiological fact to all those persons who, being the subjects of fatty degeneration or other disease of the heart, are most likely to suffer from this kind of syncope, and in whom the organ may less readily recover from the temporary paralysis. There are two remedies of great value in diminishing these evil effects. A thoroughly tight bandage around the abdomen; inasmuch as it prevents to some extent, the shaking of the stomach, and consequent irritation of the vagus nerve, so precluding the occurrence of sickness; and chloroform taken into the stomach may similarly prevent or diminish the annoyance by partially paralysing the vagus.—*London Lancet.*

UTILITY OF COFFEE IN SOLDIERS' DIET.—M. Larrey, having been called upon by the Council of Health for the Department of the Seine for his opinion as to the desirableness of extensive employment of coffee in the soldier's diet, speaks in his reply in the warmest terms concerning its use. He states that upon his father's recommendation it was employed freely in Algeria, with the best effects upon the soldiers' health, as a substitute for brandy. It has also seemed to act in some measure as a prophylactic to intermittent fever.—*London Medical Times and Gazette.*

Asthenopia, its Cause and Treatment.

BY HASKET DERBY, M. D.

THE attention of oculists, as well as that of general practitioners, has long been attracted to a peculiar form of disease, the symptoms of which are exceedingly characteristic. The eye presents a perfectly normal appearance; its movements are unrestricted; convergence of the axes of vision takes place without difficulty; the perception of objects is generally as perfect as ever; and yet, in spite of all this, reading, writing, or any other employment requiring near objects to be viewed, induces fatigue; objects become confused and indistinct, and a sense of tension is felt above the eyes. Such a height does this reach that temporary relinquishment of the employment is rendered necessary. After resting a few moments vision becomes again distinct, but the same symptoms develope themselves again sooner than before. The amount of labor that can be performed is directly proportional to the amount of rest that has been taken.

As long as the eyes are not employed on near objects vision appears normal and no disagreeable sensation is experienced. No sooner, however, does the patient, regardless of what he has experienced, attempt to continue his previous occupation, and the symptoms become more and more pronounced; the pain in the forehead grows more intense; the eyes become red, the tears flow freely, yet the eyes themselves are rarely painful. As this condition becomes more aggravated, the patient is obliged to close his eyes and pass his hand over his forehead. Has too persistent an effort been made, all work on near objects must be given up for a considerable period.

This condition was at first regarded as a species of amblyopia, and was called *hebetudo visus, amblyopie presbytique*, or *amblyopie par presbytie.* Its real nature, remained, however, a mystery.

Mackenzie came nearer the truth in stating that the seat of this disease was probably to be looked for in the organ or organs of the accommodation, that is, the power possessed by the eye of adapting itself to different distances. The majority of oculists signified their approval of this theory, but remained in ignorance of the true nature of the disease. They remarked, it is true, that the accommodation became quickly fatigued, and that convex glasses, (the use of which Mackenzie discouraged,) alleviated the symptoms partially or entirely; the idea, however, never occurred to them that an abnormal structure of the eye lay at the root of the whole matter.

To form a just conception of this, at first sight, somewhat startling proposition, a brief *resume* of the more recent views concerning the accommodation of the eye and its anomalies of refraction will not be out of place.

Till within a very few years the most dissimilar doctrines have prevailed as to the nature of the power of the eye of so altering its state of refraction as to bring rays coming from different distances to a union on the retina. This had been successively supposed to reside in the cornea, the iris, the lens, the "layers of the vitreous," and the recti and oblique muscles. Myopia and presbyopia were supposed to be two opposite conditions; the one compelling an object to be held nearer to, the other further from the eye, for the purpose of distinct vision.

The results of modern investigation show:

That the agent in the act of accommodation is the crystalline lens, which varies its convexity without changing its position. That where objects are so distant from the eye that the rays coming from them may practically be regarded as parallel, such rays are brought to a focus on the retina without any accommodative effort; and that the nearer the object approaches the eye, the greater will be the strain on the accommodation. And while the far point, or limit of distant vision of a normal eye, may thus be said to lie in infinity, (rays coming from an infinite distance being parallel)—*i. e*, the nearest point for which it can accommodate—progressively recedes with advancing age, constituting presbyopia when it has increased its distance from the eye so much as to cause inconvenience.

Thus, in an ideal eye the farthest point of vision should lie in infinity; that is, the eye, when adapted for its farthest point, should possess the power of bringing parallel rays to a union on the retina without accommodative effort.

Relatively few eyes, however, correspond to this ideal. Parallel rays, entering some eyes adapted for their farthest point, are brought to a union before the retina, so that only divergent rays, proceeding from objects relatively near can form perfect images on its surface. And parallel rays entering other eyes whose accommodative power is similarly relaxed, find their point of union behind the retina, to form perfect pictures on which the rays should enter the eye converging.

Both of these conditions depend on a defect of structure of the eye concerned. The first defines myopia; for the second, Donders has proposed the name of hypermetropia; and presbyopia may exist in connection with either. In the first case, the far point lies *this side of*, in the second *beyond* infinity. The first requires a concave, the second a convex glass in order to see distinctly in the distance. It is with the last or hypermetropia that we have to do.

Although recognized as early as 1853 as an abnormal condition of the eye, and a year or two later described with much ability by Stellwag von Carion, (*Opthalmologie*, vol. 2, page 371,) Donders was the first to point out the fact that the occurrence of hypermetropia in a moderate degree was far more common than generally was supposed; and that, as such, it lay at the bottom of a difficulty, which, under the various names of asthenopia, kopiopia, lassitude oculaire, amblyopia, presbytique, weak-sightedness, morbid sensibility of the retina, etc., etc., had played a role of no little importance among the comparatively less understood diseases of the eye. In 1858 he first enunciated the doctrine that the great majority of cases of asthenopia would be found associated with this abnormal structure of the eye. And in 1860 he so far extended the application of the rule as to almost deny the possibility of the one condition existing independently of the other; stating that in no one of the last hundred cases examined by him had hypermetropia to a marked degree been absent. And the researches of others in this field have confirmed its presence in at least twenty-nine out of every thirty cases.

Rays proceed from all objects in nature, divergent, or at the most parallel, and this only from objects at an infinite distance. The eye is consequently not called upon to adapt itself for the reception of convergent rays. It fulfils all necessities when it brings tolerably divergent rays together on its retina; and, besides this, can sufficiently relax its accommodation for the reception of parallel rays; if it can do more it has overstepped its office, the eye possesses a useless power and one that materially interferes with its original usefulness.

Want of space renders it impossible to rehearse fully the reasoning by which Donders accounts for the existence of æsthenopia in a hypermetropic eye. It is well known that the amount of accommodation which we can bring to bear on an object at a given distance depends, in a great measure, on the angle at which it is necessary to converge the axes of vision in order to regard that object; the rule being that the two go, to a great extent, hand in hand, and that the greater the convergence the more accommodation we can bring into play. We distinguish between absolute and relative accommodation; absolute being the whole amount of accommodation that exists under the most favorable circumstances, the near point being taken at the greatest possible convergence of the visual axes, and the far point at their nearest approach to parallelism; while relative accommodation is the amount that can be made use of at any one fixed convergence of the axes of vision. Now it is found by experiment and observation that where normal eyes need, for a given convergence, half their relative accommodation, hypermetropic eyes are obliged to use seven-eigthths or even more, which greatly fatigues them; and that the cause of the asthenopic symptoms is thus simply a want of proportion between the convergence of the axes of vision and the amount of relative accommodation that is obliged to be brought into play.

Treatment.—In former times, when hypermetropia was either unknown or misconstrued, positive glasses were interdicted for distant objects, and only those very weak were used for the near ones. The relief thus afforded would naturally be exceedingly slight But now that the nature of the difficulty is completely understood, we have only to bear in mind the object to be effected, viz: the relieving the accommodation of an unnatural strain, and the restoring of the proper harmony between it and the convergence of the axes of vision. The treatment thus becomes simple, and may be explained in a few words. We give the patient the glass that expresses the degree of his hymetropia, for constant use. The strongest convex lens with which he sees distinctly in the distance reduces his eye to one which needs no glass for either near or remote objects; and it is gratifying to observe the complete alleviation of the asthenopic symptoms which almost always follows its judicious employment. Should, however, the patient possess only a limited power of accommodation, a stronger lens will be needed for work on near objects; and a simple mathematical process enables us to compute the glass with which he shall be able to work in a given distance, and in so doing bring into play not more than one-third of the whole amount of his accommodation.

The *Medical and Surgical Journal*, from which we extract the preceding article, makes the following remarks:

Much difficulty is occasionally experienced in determining the strongest glass with which the hypermetrop can see in the distance. The patients are so accustomed to using a portion of their accommodation when looking at distant objects, that they continue to do so even when the necessity is obviated by glasses being held before their eyes. In such cases a solution of atropia, sufficiently strong to paralyse the accommodation, must be instilled into the eye before the trial is made. Donders relates a case where, at first, a convex lens of twenty-four inches focus was preferred to one of twenty by the patient for regarding distant objects; where one of sixteen and one of twelve permitted but imperfect vision, but where, after the employment of atropia, one of six inches focus was found to be the glass required.

* * *

APPARATUS FOR ASCERTAINING THE PRESENCE AND DEGREE OF VITALITY.—Mr. Mennons has recently patented an improved apparatus for ascertaining the presence and degree or cessation of vitality in the human body, and in animals of the higher class, applicable to the semeioses of health, disease, and death. The invention consists in a novel combination of acoustic instruments, by the aid of which the variable degrees of animal vitality in health or disease may be translated into signs of known value, and by which the transition from life to death may be verified with absolute certainty.—*London Laucet.*

Paracentesis in Hydrothorax.

TROUSSEAU frequently resorts to the use of paracentesis in cases of effusion into the chest, and has met with considerable success in this operation. During the past winter, he has had several cases of this nature, some of whom succumbed before the progress of the malady, while others recovered. He even ventures to puncture the pericardium. In a case of heart disease which he had a short time ago, he entertained the idea of performing the operation, but was fortunately, from some concomitant circumstances, prevented from carrying his intention into execution, for, upon making the *post-mortem*, the amount of effusion was found to be very trifling. He has at present a case in the wards, of a boy whose chest was punctured for a pleuritic effusion, and who is now doing so well that in a few days he will be dismissed. The following is a short sketch of rather an interesting case, in which paracentesis thoracis was resorted to, but in this instance only as a palliative. A young woman, aged 22, was admitted on the 25th of February. She had been delivered at the Maternity Hospital on the 14th of the same month, under the influence of chloroform, the labor having been severe and tedious. Eight days after her confinement, she returned home, but was compelled, on the above date, to seek admission into the Hotel Dieu, for a cold which she had caught in consequence of imprudent exposure. On admission, she appeared to be very anæmic, a bruit was audible in the vessels of the neck, both arterial and venous, and under the microscope the blood showed numerous isolated large white corpuscles. During the evening and night of this day, she experienced severe and prolonged rigors, with considerable oppression of breathing, pulse weak and 108 per minute, tongue coated, with thirst, loss of appetite, and constipation. On the 28th, there was a repetition of the shivering, and she complained of pain in the right breast, as was also the left; this was attributed to suppression of the lacteal secretion, her child having been sent to the depot, where it died of convulsions shortly afterwards. In the evening, she was suddenly seized with a most violent and excruciating pain in the right side, and at the same time the respiration became very laborious. She was ordered sinapisms, hot fomentations, and applications of chloroform. On the 1st of March, the breast was still swollen and painful; the pulse 140 per minute, oppression of breathing considerable, and anxiety of countenance very marked. There was great pain on the slightest pressure being made on the thorax; there was also dullness at the lower part of the right side of the chest with large mucous rales, but neither vesicular breathing nor ægophony was audible. On the 2d of March, at the upper part of the right chest, there was heard a loud tympanitic resonance, with amphoric breathing and metallic succussion sound, but no vesicular murmur; at the lower part of the same side there was dullness with distant mucous rales; and the left side was normal. There was a very trifling expectoration of saffron-colored viscous phlegm; no history of a tuberculous tendency could be elicited. The diagnosis given was circumscribed pneumonia, and metastatic abscess from puerperal pyæmia, perforation of the lung, and, as a consequence, hydro-pneumo-thorax. Ordered subcutaneous injections of solution of atropine night and morning, with administration of mercury and digitalis. On the 3d of March, these symptoms continued. There was a marked prominence of the upper part of the right chest anteriorly, and the respiration was entirely performed by the left side; gums slightly swollen. Ordered to suspend the calomel, to continue the digitalis, and to apply chloroform liniments. On the 4th, the patient's condition had become so alarming, from the extreme exhaustion and oppression of breathing, that it was deemed necessary to perform paracentesis, which was done by entering a trocar between the seventh and eighth ribs, and drawing off a quantity of horribly fœtid, sero-purulent fluid. The proceeding afforded immense relief to the patient. A gum-elastic sound was retained in the aperture, in order to keep it permanent. On several subsequent occasions, more of the same kind of fluid was withdrawn, and injections of a strong alcoholic solution of iodine and iodide of potassium were made, without producing much pain. Up to the 6th of March, four *litres* (French) had been withdrawn, ameliorating in a marked degree the condition of the patient. On the 7th, diarrhœa had set in, with great anxiety and oppression, the pulse was 158 per minute and very feeble, and in the chest a faint, transmitted respiratory murmur was audible. The succussion sound was diminished, but there was still great metallic tinkling posteriorily, and the thorax had commenced to contract. The iodine injections were continued, and chalk and bismuth ordered. After this the patient gradually sank, and expired on the 13th. The post-mortem examination gave the following results: Perforation of the summit of the right lung, with circumscribed pneumonia and purulent deposit; the pleural cavity lined with a thick, false membrane in a state of putrefaction; no tubercles in the lung; uterus healthy, except some deep engorgement of the os and cervix; no pus found in the cavity or structure of either uterus or Fallopian tubes.—*Paris Correspondence of the Edinburgh Medical Journal.*

Syphilitic Secondary Infection.

BY DR. ANSTIE.

THE following case is of considerable interest in relation to the controversy pending as to the communicability of secondary syphilis:

C. B., a healthy-looking, married woman, aged 32, applied to me at the Chelsea Dispensary, on March 20. She complained of a "bad breast," and on examining the part I observed, situated about three-quarters of an inch above the nipple a sore, which presented all the characters of the true Hunterian chancre. The woman informed me that she had given suck for about two months to the child of an unmarried girl who lodged with her, the infant being about six weeks old at the time she took it in hand. About a fortnight after she commenced to suckle it, "sores" appeared at the angles of its mouth and on the nates, and a copious, copper-colored squamous eruption on the trunk, limbs, palms of the hands, and soles of the feet; nevertheless, its temporary nurse did not suspect the character of the disease, but continued to give it the breast. About three weeks later, a pimple appeared on the woman's breast; the base of this pimple was remarkably hard, and after a few days the top fell off, disclosing a deep, clean-cut sore, which yielded but a very small amount of thin discharge. Finding that the sore did not heal, the woman began to suspect the child which she had nursed of having infected her with venereal disease, and it was accordingly taken away and put under Medical treatment. At the same time, however, the mother, who was acting as wet nurse to a lady's child, instead of resuming the care of her own infant, gave it to another young married woman to nurse, upon whose breast a similar sore was soon produced to that which my patient presented. I have not been able to get sight of the infant myself, but I most carefully questioned, not only my patient, but also two or three neighbors who had seen the child, and their account of the "sores" on the mouth entirely corresponded to the description of the ordinary mucous tubercles. I ascertained, also, to my perfect satisfaction, that the nurse whose breast presented the chancre, and her husband, were both highly respectable people, and most certainly had never contracted the primary disease in the ordinary way.

The treatment of my patient consisted for the first week in the administration of pil. hydrarg. gr. v. bis die. Afterwards this was exchanged for hydrarg. iodid. gr. j. ter. die, and the latter treatment was kept up for five weeks, a gentle salivation being produced and kept up. At the end of this time the sore on the breast healed, and the induration had disappeared, but a copious copper-colored scaly eruption had appeared in almost every part of the body, and for this eruption the woman is still under treatment with iodide of potassium. The infant, which has been under the care of another Medical man, has recovered from its syphilitic symptoms; but I understand that it is in a miserable state of marasmus, and not likely to live. Its mother appears at the present time to be healthy, and I still unable to discover whether she contracted primary disease from her lover, (a dissipated young life-guardsman,) or whether he merely transmitted the disease to his offspring.—*Medical Times and Gazette.*

* * *

THE TURKISH BATH IN THE TREATMENT OF INSANITY.—Dr. Power, resident Physician of the Cork Lunatic Asylum, in a speech delivered on the occasion of the presentation of an address and testimonial to Dr. Bartes, on April 23, 1862, recommended in highly eulogistic terms a trial of the Turkish bath in the treatment of the insane. Speaking of his own experience of its effects he said:—"Of course, out of more than 500 patients in the Institution all were not expected to recover, nor were they all under treatment for the purpose; but the best way of showing the effects of the bath would be by statistics It was only fair to conclude that if the proportion of cures had been greater since the introduction of the Turkish bath than before it, this bath must have had some influence in producing that desirable result. I see by my notes that for the year ending March, 1861, the cures were 59 per cent.; but for the nine months ending 31st December last, during which period the bath has been in use, the per-centage of cures was 76—that is, 74 had been cured out of 96 entered. That was more than double the number of cures produced in any asylum in England. The patients, after the first few baths, all seemed to be much pleased with it, and were always longing for the time when it was to be administered. Those who had suffered a relapse, after being sent out cured, showed no unwillingness to return to the Asylum; and even asked to be taken there at once, in order that they might get the bath, as they considered that nothing else would cure them. I have never seen any ill effects from the bath, except a little nausea and a slight fainting in a few instances, but after a bath or two those effects disappeared. Up to that time I have used it on more than 900 cases, and since March, 1861, 30 idiotic patients have been removed to a higher class, and rendered capable of enjoyment and of doing work about the establishment. I would recommend the introduction of the Turkish bath into all public Institutions, and I am firmly convinced that it has as beneficial an influence on the system as air and exercise."—*Medical Times and Gazette.*

On the Action of Certain Substances on Phthisis.

BY RICHARD PAYNE COTTON, M. D.

HAVING already considered the therapeutical action of chloride of sodium, iodide of potassium, iodide of iron, hydrochloric acid, liquor potassæ, phosphorus, and vinum ferri respectively, upon twenty-five Hospital cases of uncomplicated chronic phthisis, I proceed to add that of chlorate of potassa upon a similar number of Hospital patients.

The generally-acknowledged tonic, antiseptic, and upholding influences of the chlorate of potassa have caused this agent to be rather extensively tried in consumptive cases. The results, however, have been very variously stated; but, in a recent number of the *Dublin Quarterly Medical Journal*, a Physician of Belfast has unhesitatingly brought it forward as a *specific* for pulmonary tuberculosis, at least in the first and second stages of that disease.

Of the twenty-five cases for which I prescribed it, fifteen were males and ten females. Eight were in the first stage, eight in the second, and nine in the third stage of phthisis. They varied in age: one had reached fifty; but the rest were from twenty to thirty years. Notes were regularly taken by Mr. Harington, resident clinical assistant.

Of the entire number, five improved considerably, four improved a little, and sixteen seemed to derive no advantage. Of the latter number, four, at least, may be said to have been more or less benefitted when the chlorate was exchanged for some other tonic.

The period during which it was administered varied in different cases. In this, as in the preceding experiments, my habit has been to continue the same treatment for at least three weeks. If at the expiration of that time, very little or no progress has been made, I have tried something else; but whenever there has been encouragement to proceed, I have done so. My notes record that the chlorate of potassa was taken in five cases, for periods varying from six to ten weeks; the average being four weeks. The dose was ten or twelve grains three times a-day.

In twelve cases cod-liver oil was occasionally, but not quite regularly, taken at the same time. It would, of course, have been more satisfactory had the chlorate in every instance been administered alone; but many patients on entering the Hospital are already so practically acquainted with the good effects of the oil, that it would be cruel to deprive them of its use, while in such cases the attempt to do so would in all probability only prove abortive, for I have many times discovered that patients for whom I have not prescribed cod-liver oil have very significantly testified to its usefulness by taking it clandestinely. In analysing those to which the oil has been taken, I find that six belonging to the list of nine more or less improved patients.

Nine increased in weight whilst taking the chlorate, or seven lost weight, and nine underwent no change. Of the nine who gained in weight, six belong so the number who had also taken more or less, the cod-liver oil.

Of the improved cases, three was very decided, the patients having expressed themselves as feeling better that they had done for many months; two of these, however, belong to the class who had taken the oil. It was generally observed that those patients in whom there was any perceptible improvement were of broken down and cachectric constitution; indeed, just in that condition in which without regard to their being phthisical, the chlorate of potassa might very hopefully have been prescribed.

The preceding facts, taken in connexion with the very potent influences of improved sanitary and dietetic arrangements to which all the patients were subject on entering the Hospital, would seem to justify the following conclusions:—

1. That chlorate of potassa has no *specific* action upon consumption.

2. That its usefulness, even as an auxiliary in the general treatment of phthisis, is very questionable, and is probably limited to that cachectic class of cases in which it and allied remedies are so often serviceable.—*Medical Times and Gazette.*

Reorganization of the Medical Department of the Army.

The bill introduced into the Senate by Senator Wilson, for the reorganization of the Medical Department of the Army, possesses great interest to the profession.

The features of the bill, which will arrest attention, are: 1. The increases in the force of the Department; 2. The elevation in rank; 3. The formation of a corps of medical cadets; 4. The promotion to the highest places in the Department by merit, and not seniority; 5. The retiring of officers at the age of sixty-five. The Bill, as drawn, was evidently designed to place the medical department of our army on a basis corresponding with those of Great Britan and France. The title of the chief officer is very properly changed from Surgeon General to Medical Director—a change long since made in the English medical department. In 1814, the head of the U. S. Army Medical Bureau was styled "Physician and Surgeon General." The addition of a Sanitary Department, properly appointed, is a most important improvement, and cannot fail to commend itself to the good sense of our legislators. The rank is also a great advance, but still it is not what military science in our day requires. There can be no good reason why the first Medical officer should not be a Major-General. It is very doubtful whether Medical Cadets, as a distinct corps of the staff, will prove desirable. In every portion where medical services are required, fully qualified surgeons can alone properly discharge the duties. In large civil hospitals, undergraduates are now rarely admitted, and much less should they be intrusted with responsible duties in military hospitals. Promotion to high offices according to merit, and not by seniority, is now becoming the prevailing custom in other departments. It has its advantages, and its disadvantages. While it stimulates the young and ambitious to perform meritorious services, it cannot be denied that it places the office within the arena of political influence, and in that respect might seriously compromise its efficiency. Still, towards that general regulation, our own as well as other Governments are tending, and we should not be disposed to reject it. Indeed, promotion by merit was, we believe the rule in the early history of the medical department of our army Surgeon-General Lovell, who succeeded Physician and Surgeon-General Tilton, was thus promoted. Finally, the retiring of officers after a given age must be a rule in every department of government requiring great energy and activity.

The importance of a reorganization of the medical department of our army is an admitted fact by military officers no less than by the Medical Staff itself. The events which have occurred within the last six months have revealed the defects of the present organization, and call for immediate reform. The medical profession should seize the present opportunity to place this branch of public service, in which they have a special interest, on the most elevated basis. Medical men throughout the country can do much to further this object by communicating with their representatives in Congress.—*American Medical Times.*

Causes of Failure in the Treatment of the Uterine Ulcer.

BY ROBERT ELLIS, ESQ.,
Obstetric Surgeon to the Chelsea and Belgrave Dispensary.

A CONSIDERABLE acquaintance with the treatment of the uterine ulcer has forced upon me the conviction that, notwithstanding all that has been done in the elucidation of this disease (or rather class of diseases), the subject is still very imperfectly understood. However unlikely this may appear, the statement admits of sufficient corroboration, and may be supported by abundant testimony. The articles which have already appeared in THE LANCET on the varieties of the uterine ulcer were in a special manner intended by me to set this subject in a practical light, and to show the advantages of careful diagnosis as conducive to success in treatment. Because of the failures of others, and out of an inquiry into the causes of my own, those articles were prepared, and the importance of a strictly discriminative treatment was sought to be enforced. As a practical summary of the proper treatment of this or any other disease may be gathered from an investigation into the causes of a frequent ill-success, I venture to append the present to the former papers, and it is not improbable it may be found to be the most useful of the number. I will first show, by one out of many cases which have come under my notice, that there is a need for this investigation, and then enumerate the commoner causes of unsuccessful treatment.

Mrs. C. L——, aged thirty, married nine years, applied for advice under the following circumstances. She had been for three years under the care of a physician for uterine disease, and in the course of that time had been cauterized with nitrate of silver upwards of *one hundred times.* At the expiration of this period, thinking her case desperate, and having been told by her attendant that she still remained uncured, she submitted her case to me. She complained of great weakness, pain in the back, bearing down, and constant brownish discharge. She had experienced one or two bad confinements and one or two miscarriages with great hemorrhage. She was pale and worn in expression of countenance, and dejected as to her future prospects of health. Examination disclosed a large ulcer, of the character I have designated "fungous"—an ulcer, on an atheromatous basis, occupying both lips of the cervix uteri, and reaching high up the canal. What effect the large number of cauterizations she endured might have had on this ulcer I could not perceive. Possibly it might have been large formerly; but I think more probably it was a little if at all altered by the applications made to it. It had been treated by means of a small cylindrical glass speculum, and so mildly that on no single occasion was pain ever experienced by the patient. The cause of failure in this case in all probability lay, first in the imperfect diagnosis of the character of the ulcer, and secondly in the most inefficient and imperfect means adopted for its treatment. It was a pleasure to tell this suffering lady that in a few weeks the whole mischief would be removed and her disease cured.* It might not be easy to find a more conspicuous example of failure in treatment than that here presented, but it is by no means difficult to adduce many similar instances. Cases are constantly coming under notice which in many of their features present the parallel of this.

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* One or two resolute applications of the stronger caustics, followed by a thorough penetration of the canal by the luner caustic, have verified this statement, and the patient is at this present writing nearly well.

The principal causes of failure in treatment may be found under the following heads:—

1st. *Errors of Diagnosis.*—I believe this to be one of the most constant reasons for the ill success and the slow progress of treatment in numbers of cases presented to our consideration. I have known the malignant ulcer—true cancer of the cervix—mistaken for the simple sore, and treated with escharotics, to the sad detriment of the patient. The simple ulcer has also frequently been mistaken for the cancerous, and the sufferers left unaided to struggle with a painful and depressing yet an easy curable disease. The "indolent" ulcer has been treated as the "inflamed," and the patient put to bed for five or six weeks, during which she has been repeatedly leeched. The "diphtheritic" ulcer is not so easily to be mistaken; yet it is liable to be, and has been, confounded with the "inflamed;" and it is a serious mistake for the patient if it be treated with some kinds of escharotics. The "fungous" ulcer may also (as in the case already quoted) be so trifled with—as if it were a simple and easily curable sore— as to baffle the surgeon and wear out the patient. Of the importance of a right diagnosis in syphilitic ulcer of the cervix— a disease happily very rare—it is unnecessary to speak. There is little real difficulty in coming to a correct diagnosis as to these variuos forms of uterine ulcer; and if the reader will refer back to the five articles preceding this,* and examine the characteristic evidence of each phase of the legitimate reward of care in diagnosis, it may be hoped that the cause of failure now treated of will be diminished in frequency as these diseases are more carefully investigated.

2nd. *Errors of Treatment.*—Of this, probabily all surgeons must be found more or less guilty. Since the instrumental treatment of uterine ulceration is of the present day, we could not but suffer for a time from the want of previous experience and a sound basis of knowledge. But these errors are no longer justifiable; and, the differing forms of uterine disease being well understood, true principles of cure may be laid down. The application of leeches to a fungous, diphtheritic, senile, indolent, malignant, or specific ulcer, is a mistake which no one ought to make—yet it is frequently made. On the other hand, the administration of wine or high-class tonics—quinine, iron, and strychnia—is a not less serious mistake, if we are treating the inflamed ulcer. The selection of an inappropriate escharotic is also an error of no little moment—the nitrate of silver to the senile, diphtheritic or malignant ulcer. In some of these cases but little harm may be done; but in nearly all, little or no good will ensue; and in one or two, positive mischief may be the result. A reliance on injections for the cure of any form of uterine ulcer is a most common and therefore a very serious error in treatment. The wife of an officer in the army has just applied to me, who for two years had strong injections of alum and sulphate of zinc administered to her daily, for an indolent ulcer of the cervix, and it has continued unaltered in spite of this treatment;—it is probably worse than it was. I have observed therefore with great regret the introduction of the system of frequent irrigation as a means of cure in these diseases. Disappointment will certainly follow a dependence on such means.

3rd. *Inefficiency of the means employed.*— It might seem impossible to look at the inflamed, hypertrophide, ulcerated, pussecreting structures of the diseased uterine cervix, without at the same time being impressed with the fact that no trivial agent would suffice to effect its restoration to a healthy state. Elsewhere in the human body such an ulcer would be pretty sure to receive the firm and uncompromising attention of the surgeon. It is certainly a disease not to be cured—not, at least, soundly cured—by any agents the action of which is merely superficial. What is required is, to substitute healthy for diseased action; and the most rapid method of doing this is cauterization by the stronger escharotics. Even in the use of these a distinction is to be drawn. Potassa fusa is applicable for the melting down of a stony hypertrophy. The acid nitrate of mercury has a caustic and also an alterative action, and is applicable to certain states of the inflamed ulcer. The strong nitric acid, saturated with nitrate of silver,* is fit for the treatment of the fungous ulcer, being both a powerful escharotic and an astringent. For milder cases the nitrate of silver, very firmly applied, and allowed to lie for some seconds on the part affected, is useful. These agents have a real power over the cure of these diseases, by the side of which a medicated injection counts for but little. Yet there may be an inefficient use even of these means, powerful though they are. Neglect in moving the ropy discharges will go far to neutralize the action of any one of them—and there is no neglect more common. Neglect of applying the escharotic sufficiently high up the canal is a most frequent cause of failure. Several cases have occurred to me in which the failure of cure has its origin solely in this neglect, the disease appearently lurking high in the canal, and creeping down after the lapse of a certain time. The constant danger of fracture in using the cylinder of nitrate of silver has often led to its very inefficient employment. To obviate this I have for many years made use of an instrument in which I have passed a platinum pin through a hollow cylinder of the caustic, and thus rendered it impossible to be broken off.† It is thus possible, were it to be desired, to pass the stick of caustic beyond the os internum, and to ensure its safe return. A too frequent cauterization is also a frequent cause of failure coming under this category, and it is particularly observable in obstetric practice at public institutions, at which the attendance of the patients is not so systematic as in private practice. The result is very frequently that the cure is always commencing and never progressing. But, in the long run, the only evil arising out of this is the great prolongation of the time of cure. A most important and common cause of inefficient treatment is to be found in the use of imperfect instruments. Of the caustic-holder I have already spoken. The right form of speculum is not of less moment. I believe the failure of treatment in the case placed at the commencement of this article to be in the main traceable to the use of a cylindrical speculum exclusively. The only purpose of which this form of speculum is valuable is in the application of the fluid escharotics, which, but for its protection, are apt to run down and do mischief. It cannot be too strongly insisted upon, that a speculum, to be of real use, must be capable of opening out the lips of the cervix, as by this means alone can the canal be thoroughly cauterized.

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* THE LANCET, vol. ii. 1861: July 6th and 27th; Aug. 24th: Nov. 2nd and 9th.

4. *Neglect of accessory means* constitutes another very common cause of failure. Particularly, I would refer to the neglect of daily injections. The instruments formerly universally recommended for this purpose to sufferers from uterine disease, and still in very general use, are amongst the most barbarous and inefficient that can be concieved. The glass female syringe I have extracted in jagged fragments from the person of one of my patients who had recourse to it, and had broken it in the canal. The syringe of Gooch, and all other similar to it, are loathsome, and as likely to do harm as good. The clean and elegant instrument known as the uterine douche fulfils every purpose for injection, and a steady use of it (in the unimpregnated state) is a powerful aid to the cure of uterine disease. A due attention to the laws of hygiene is not less important: and, most of all, the securing an effectual state of rest— mechanical and, as far as may be, of physiological rest also. With regard to the use of medicines, it is just possible that here a little neglect may be really wholesome, for the patient has too often

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* See THE LANCET, Nov. 2nd, 1861, p. 417.

†This instrument has been well made for me by Mr. Coxter.

been put through all the formularies, and is weary of taking medicine in vain. The state of the bowels, and of the digestive functions, may not, however, be disregarded. It is, of course, perfectly probable that, notwithstanding all neglect of accessories, the patient will still be cured, if she be well managed in other respects. But this is to be remembered—her cure will be longer, will be more painful, and is less safe than under a more perfect system.

5. *Imperfect cure* of the ulcer is a constant source of failure to the obstetric surgeon. After a few cauterizations the sore takes on such an improved look that he may think further attention unnecessary. The patient derives a certain amount of temporary good, and is satisfied; but the lapse of a year, often of less, will test the soundness of his work, and he will find to his annoyance that the whole malady has to be treated over again. The condition of the structures below the ulcer was overlooked in his estimate of the cure, and as the cauterization was not deep enough to modify that, the disease returned. Much pains, patience and time are really indispensable to the solid cure of the disease; and it is only a loss of all if the surgeon hurry his case to a premature close. It must also not be forgotten that the ulcer may be lurking high in the cervical canal, and amongst the folds of the arbor vitæ. A thorough cure will generally be a permanent cure.

The following table may prove useful as an appendage to this article, and exhibits the varieties of the simple ulcers of the cervix uteri in their order of frequency, with their diagnostic characters and appropriate treatment:

VARIETY.	CHARACTERS.	TREATMENT.
1. *Indolent Ulcer.*	Cervix hypertrophied, of a pail pink, and hard. Os patulous to a small extent. Ulcer of a rose-red. Granulations large, flat, insensitive, and the edge of the ulcer sharply defined. Discharge: mucous, with a little pus, and occasionally a drop of blood.	For a few times the caustic pencel. Afterwards, several applications of solution of nitrate of silver in strongest nitric acid,
2. *Inflamed Ulcer.*	Cervix tender, hard, a little hypertrophied, hot and red. Vagina hot and tender. Ulcer of a vivid red. Granulations small and bleeding. A vivid red border around the ulcer. Discharge: a mu-co-pus, yellow and viscid, with frequently a drop of bright blood entangled in it.	Occasional leeching; hip-bath (warm); emollient injections. Then acid nitrate of mercury several times, succeeded by the solid lunar caustic potassa fusa or cum calce.
3. *Fungous Ulcer.*	Cervix soft, large, spongy to the touch. Os wide open, so as to admit the finger. Ulcer large, pale, studded with large and friable granulations. Discharge: a glaizy, brownish mucus, frequently deep tinged with blood.	At first the caustic pencil. Subsequently, nit. acid solution of nitrate of silver, or acid nitrate of mercury; electric or actual cautery.
4. *Senile Ulcer.*	Cervix small, red, a little hard. Ulcer small, extremely sensitive, of a bright red color. Granulations very small, extremely sensitive, of a bright-red-color. Granulations very small, red, and irritable. Discharge: a thin muco-pus.	Potassa fusa, or strong nitric acid with nitrate of silver, once or twice, at *long intervals.* Then, solid sulphate of copper in a pencil.
5. *Diphtheritic Ulcer.*	Cervix of ordinary size: a little hot, dry, and tender. Ulcer covered with patches with a white membrane, adhering closely; irritable, and readily bleeding beneath. Discharge: a thin, acrid mucus without pus but occasionally tinged with blood.	At first electric cautery, potassa cum calce, or acid nitrate of mercury, two or three times, at long intervals. *No nitrate of silver.* Subsequently, stimulant applications — tincture of iodine or sulphate of copper.

I may be allowed in conclusion, to express my conviction that the more carefuly these varieties of the uterine ulcer are studied, the greater will be found the practical value of their diagnosis, and the fewer the instances of failure in their treatment.—*Lancet.*

Two Cases of Acute Alcoholic Poisoning in a High Degree—Recovery.

BY DR. WILLSHIRE.

CASE 1.—C. C—— aged sixty-five, a porter occupied at night-houses, was on Monday, Jan. 13th, brought into the hospital by the police in the following condition: Comatose; quite collapsed; pupils dilated and insensible to light; the surface of the body pale oppressed, but not stertorous: quite unable to swallow, and smelling very strongly of gin.

Mr. Travers, the house-surgeon, applied the stomach-pump, and removed by it a pint of clear liquid, which smelt as if it was pure gin. After this, by Dr. Willshire's orders, strong coffee was injected into the stomach, and a turpentine and castor oil enema adminstered. Warmth was applied to the surface by hot blankets and bottles of hot water. The bowels were freely acted upon by the enema, and the patient became conscious about seven o'clock the same evening. The next day he was ordered a diuretic mixture of bicarbonate of potash and tincture of squills in compound decoction of broom-tops, which he took for two days, after which, for reasons unconnected with the alcoholism, carbonate of ammonia mixture was ordered to be taken.

The patient subsequently stated that he was induced by two gentlemen (?) frequenting the night-house where he was employed, to drink out of tumblers one pint and a half of mixture of raw gin and brandy in the space of twenty minutes. He did not lose consciousness for ten or fifteen minutes, and left the public-house, dropping down senseless on his way home. He has been in the habit of drinking for forty years, and said he could manage as much as a pint of spirit in the course of the day without getting drunk. He never suffered from delirium tremens.

CASE 2.—J. S.——aged twenty-six, cabman, was brought into the hospital on Friday, Jan. 24th, about ten A. M., when Mr. Travers, the house-surgeon, found him in the following state:—Totally insensible, pulseless, with the surface cold, the countenance cyanosed, the pupils contracted (but afterwards became dilated), and the breathing stertorous. He was foaming at the mouth, and his breath smelt very strongly of gin.

The stomach-pump was employed, and a pint and a half of dark fluid drawn off, having the odor of almost pure gin. Strong coffee was afterwards injected into the stomach, the temples were dry-cupped, and counter-irritation applied to the soles of the feet. Under this treatment the pulse rose and the surface of the body became warm. Dr. Willshire, upon seeing him, ordered a strong infusion of green tea to be thrown into the stomach, and an enema of turpentine and castor oil to be administered; by the latter free action was obtained upon the bowels and consciousness restored. About six o'clock in the evening of the day of his admission he may be said to have first "came to himself again."

On being afterwards questioned, he stated that he was induced to drink a quart, good measure of raw gin, in order to win a wager; that he began about six A. M. and finished about eight or half-past A. M.; after which he could not recollect anything. Although intemperate for the last ten years, he has never suffered from delirium tremens.

The next day (Saturday) he left the hospital, experiencing no ill effect from his orgie beyond feeling a little nervous.

In some clinical observations made by Dr. Willshire upon the above cases, he remarked to the class that alcohol acted in a two-fold deleterious manner upon the system. It acted as a direct nervine toxic agent or poison to the brain; for there exists, as Dr. Percy some years back pointed out, a particular elective affinity between "spirit" and brain matter; and, secondly, that it perverted the constitution of the general nutritive fluid of the body by arresting tissue-change, and increasing enormously the fatty matter in the blood. Speaking generally, the first action is seen in what may be termed acute alcoholism; the second in chronic alcoholism, as when delirium tremens supervenes in the case of an habitual toper. Of acute alcoholism there were several forms and grades between the gradual production of slight hilarity and the sudden supervention of deep coma, from which latter the patient never rouses. When a large dose of a strong alcoholic fluid is received into an empty stomach, it will sometimes kill at once, apparently from a sudden powerful impression made upon the pneumogastric, and death will follow as quickly as from a heavy blow upon the epigastrium, or from a stroke of lightning. In other cases, rapid absorption of the poison ensues, and in a short time the alcohol exerts its specific influence, analogous in many respects to that of narcotic agents upon the nervous centres. Deep unconsciousness supervenes, calorification is diminished and death results from the suspension of the respiratory movements, the heart continues to beat for some time after the latter have ceased. The two patients whose cases they had so recently witnessed evinced this latter grade of acute alcoholism, but, luckily for themselves, up to a certain point only; but there was much reason to believe that if prompt treatment had not been had recourse to, a fatal issue in each one would have ensued. What that treatment has been, they knew, and he believed he might recommend it to them for future adoption in their own practice. In such cases the stomach must be emptied, and strong coffee (*cafe noir*) afterwards thrown into it. Strong green tea also is a very useful agent. Derivation should be produced at the other end of the body opposite to the brain through the means of a strong enema. As soon as the patient can swallow he should be ordered diuretics, in order to hasten the elimination of any remaining poison.—*London Lancet.*

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SIMPLE URETHRITIS.—This disease, remarks Prof. Trousseau, is tolerably frequent in young girls, but more in married women. It is characterized by a frequent desire to make water, with severe smarting during micturition, and vesical tenesmus lasting some minutes afterwards. Patients may be obliged to go to the water-closet ten or fifteen times an hour, and after passing a few drops of urine, go on straining for a minute or more. In some cases the inflammation appears to be propagated to the mucous membrane of the bladder. The disease never assumes a serious form, and seldom accompanied with fever; but there are often pains in the loins and hypogastrium, analogous to those observed in cystitis urethritis. Urethritis is rather common after lying-in, after miscarriage, at the period of menstruation, and in some cases it appears to be connected with an herpetic diathesis. Whatever may be the form of the disease, cubebs removes it. In general, the powder may be prescribed, from one-half to one drachm twice a day, at meals, and continued for several days, or as long as the symptoms last; then only once a day for a week; and in the following week, if the improvement continues, once every second day.—*Cincinnati Lancet and Observer, from Bull. Gen. de Therap.*

DIPHTHERIA IN NEW ZEALAND.—An official report by Mr. P. Wilson, Colonial Surgeon of the province, on cases of diphtheria which occurred during the summer and autumn of 1861 in the province of Taranaki, has been published, by the direction of the Governor, in the *New Zealand Gazette*. It appears from the report that a number of persons were attacked at New Plymouth, and that the fatality was considerable. Mr Wilson is of opinion that the pharyngeal affection is secondary to an inflammation of the lining membrane of the stomach, which may run on to entire disorganisation of the mucous membrane. He supports his opinion by the fact, that in all cases into which he inquired, except those of very young children, gastric symptoms had preceded the pharyngeal, and by the details of the post-mortem examination of three cases, in two of which the lining membrane of the stomach was softened, had lost its rugosity, and dotted with dark spots, whilst near the cardiac opening a small portion of the membrane in one of the cases about the size of a sixpence, was entirely gone. In the third case the rugœ of the mucous membrane were more than ordinarily conspicuous, and throughout not only of a deep, dusky red colour, but numerously studded with pin-head sized drops of recently exuded blood over the entire surface. The appearance of the lining membrane in the first two cases was very similar to that which Mr. Wilson has frequently observed in cases of yellow fever. In one of these, in the last stage, vomiting of a coffee-ground colored matter was noticed. With respect to treatment, Mr. Wilson recommends an early emetic of sulphate of zinc, the application of strong solution of nitrate of silver to the pharynx, and the free administration of levegated charcoal, both as a deodoriser and a corrector of gastric fermentation. He says, "I pay no regard to the high nourishing, quinine-and-wine-giving plans; but confine my patient to the least fermenting species of food, such as rice, soaked sea-biscuit; and for drink, rice-water and linseed-tea. I take care to have, in the first instance, the bowels well cleared out by a large dose of calomel, followed by a draught of castor-oil; and during the whole of the disease, I am careful so that the constipating tendency of the charcoal is obviated by laxative doses of medicines. The emetic requires, generally, three repetitions, and on two occasions I exhibited it twice a-day. Generally it has the effect of forcing off the adventitious pharyngeal membrane much more effectually than the caustic appliance. But my opinion is, that the benefit derived from these is some peculiar subduing action on the no less peculiar inflammation —probably in some such way as cayenne pepper acts on the stomach in yellow fever, or on the pharynx in angina. I have hitherto found that where the charcoal is given in frequent and sufficiently large doses, the bad odor of the breath is completely obviated; and in conclusion, I may remark that the convalescence to full or usual health has been always rapid."—*Medical Times and Gazette.*

We are not surprised after reading the above epitome of treatment that the fatality was considerable. Either the disease ib New Zealand must have quite a different form from that in which it appears here, or else the treatment adopted could have very little to do in diminishing the mortality. We think the administration of charcoal is highly useful in cases in which the throat is much affected. We recommended it in a paper read before the State Medical Society some four years since, and subsequent experience has convinced us that it tends to counteract the injurious influence of the secretions that find their way from the pharynx into the stomach.—ED.

THE birth of a quintet of girls on the 28th of March, is recorded in the *Montreal Gazette*, the mother, a French Canadian being one of four.

ORIGINAL PAPERS.

Surgical Cases.

BY H. H. TOLAND, M.D.

MRS. J——, aged 45 years, discovered a tumour upon the right side of the neck in 1843, which in two years acquired sufficient magnitude to give considerable inconvenience. She then applied to Dr. V. Mott, of New York, for relief, who, as he supposed, removed the entire tumour, and she recovered speedily. In a few months, however, it re-appeared, and increased more rapidly than before the operation.

She then applied to Dr. Parker, who endeavored to remove it by segments, being unwilling, in consequence of its location, and the previous result, to adopt a different course of treatment.

Although its growth was retarded by the use of the ligature and escharotics, it did not disappear; and when she arrived in California, in 1850, it was sufficiently large to give great inconvenience. From that time until 1860 it increased slowly, but steadily, and she determined to submit to the embarrassment resulting from its presence rather than incur the danger of exsection. During the succeeding year, it however acquired such magnitude, became so painful and inconvenient, in consequence both of its size and the ulceration of its surface, produced by friction, that she finally determined to make another effort to obtain relief.

About the 1st of October, 1861, I found the tumour, which extended from the ear on the right side to the chin, and filled the entire space from these parts to the sternum anteriorly, and extended posteriorly behind the acromion process, and was supported by the shoulder, at which point the most extensive ulceration existed, and from which she suffered more even than from its weight. Its length was sixteen inches, and the smallest diameter fourteen. Notwithstanding it was located upon the most vascular portion of the body, and the difficulties attending its removal being greatly increased by the previous operations, I yielded to her solicitations, as the knife afforded the only prospect of safety.

On the 29th of October, assisted by Drs. Trask, Wooster, Baldwin and Douglass, after the administration of chloroform, an incision was made, extending the entire length of the tumour, exposing its surface. It was then dissected from its attachments, commencing above, and proceeding with great caution until it was entirely removed.

The large vessels of the neck were all exposed, but not wounded, and the hemorrhage, which it was supposed would be troublesome, was really very inconsiderable. It was only necessary to ligate the vessels divided by the first incision.

After the exsection of the tumour, which was accomplished in fifteen minutes, considerable difficulty was experienced in consequence of the redundancy of integument, in arranging the flaps so as to obtain a cicatrix without deformity, which was, however, accomplished much more effectually than was anticipated.

She suffered but little from the operation; the wound healed rapidly, and in two weeks was completely cicatrized. The tumour when examined was found to be adipose, weighed three pounds and a half, and for the location was the largest I have ever either seen or removed. Nearly a year has elapsed since its exsection, and it has not returned; and, in consequence of the entire removal of the cellular tissue on that side of the neck, there is but little danger of such an occurrence. She is now in excellent general health, and free from any local difficulty.

M. S——, aged 31 years, discovered about thirteen years ago, and before leaving his native country, a tumour upon the lower part of the abdomen, two inches above Poupart's ligament, and about equi-distant from the superior anterior spinous process of the ilium and the linea alba. From that time until January, 1862, it increased slowly, but was attended neither by pain nor much inconvenience. Recently, however, it has been troublesome by its magnitude, and rendered him unfit to attend properly to business. On the 9th August, it extended from the superior portion of the ilium to the linea alba, and occupied a space of more than six inches from Poupart's ligament, extending upwards. The anterior extremity was covered by the rectus abdominis, which was proof positive that it was located under the abdominal muscles, and probably between them and the peritoneum. It was firm, and its limits easily defined, notwithstanding its location. Believing that it was fibrous and incurable without the knife, he was placed in St. Mary's Hospital, where, on the 11th of August, assisted by Drs. Lee and Fourgeaud, my associates in that institution, an incision was made from above the spine of the ilium to the centre of the abdomen, which extended through the integuments and abdominal muscles before the surface of the tumor was exposed. It then was removed very carefully, there being nothing between the internal surface of the tumour except the peritoneum, and that was but little increased in thickness, consequently no great difficulty would have been experienced in wounding that membrane, which would have greatly increased the danger of peritonitis. The hemorrhage was considerable in consequence of the number of small vessels divided in dissecting the inner surface of the tumour from the peritoneum. After securing them by small ligatures, the folds of intestines that were exposed were covered as nearly as possible by the muscles, the ligatures were placed in the external extremity of the incision, and the wound closed by the interrupted silver suture. Diet was prescribed, anodynes were administered to relieve pain, his bowels were opened by purgative enema, and he was placed on his back, with instructions that if his position was changed, it should be to the right side, so as to favor the discharge of the secretions so soon as suppuration occurred.

Although restless and uneasy at night, he suffered but little from fever, the pulse never rising above 92. The ligatures were removed the 8th day, and were followed by a free discharge of pus, which, although diminishing, is still considerable. The sutures have been removed, and the external wound closed, except at the point occupied by the ligatures. His pulse is 62, appetite good, and is recovering as fast as possible, after having submitted to so serious an operation.

The tumour is fibrous, weighed two pounds and a quarter, and presented the usual characteristics, except upon the external and inferior surfaces softening had commenced, and would, if it had been more extensive, have rendered the operation very difficult.

In 1861, I removed a fibrous tumour from the same location, which, although much smaller, was followed by more serious symptoms than were observed in the one fully reported, although his recovery was satisfactory.

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REVIEWS.

WALSHE ON DISEASES OF THE HEART. Philadelphia: Blanchard & Lea, 1862. For sale by Roman & Co., Montgomery street, San Francisco.

A moderate acquaintance with the general literature of the present day, cannot but suggest to any student of nature the largely increased development of a class of books which are analogous to the annuals of the vegetable kingdom, and this, too, at the expense of a more valuable class whose existence is perennial. This change in the character of our literature, at least as regards medicine, has been brought about to a certain extent by two causes, the one unavoidable, the other exerting an unfortunate influence on the progress of our science. There can be no doubt but that the rapid improvements taking place in medical science, and the discoveries constantly being made in collateral branches of knowledge, call for works which, whilst they embody the recent discoveries, at the same time are apt to exaggerate them, in order, so to speak, to popularize them amongst the members of the profession. Undoubtedly they attain their object, although at the expense of diffusing occasionally a great deal of error with very little truth: their existence is ephemeral—second editions are rarely called for, and when they appear, may be looked upon rather as advertisements from the author than as required by any legitimate demand from the profession. On the other hand, we have occasionally published a work which contains not merely certain new views or crude theories, but which conscientiously embodies all that is known on the subject, and generally developed and confirmed by the con-
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scientious researches of the author. Such works are undoubtedly rare, but still they are generally appreciated, and they become the perennials of medical literature, numerous editions being called for from time to time. Of this class is the work of Dr. Walshe, the third edition of which has lately appeared in England, and has been republished by Blanchard & Lea in this country. It is now about twelve years since the first edition was published, under the form of a treatise on "Diseases of the Lungs and Heart." The two last editions of the work have appeared as separate treatises, an arrangement which has rendered it much more convenient; and we are glad to see that the original edition has been exhausted in this country, so as to enable the publishers to offer to the profession the latest views of the author on this important class of diseases.

The work is divided into two parts; the first devoted to the "Clinical physical examination of the heart and bloodvessels," and the second to the "Diseases of the heart and great vessels." As far as the subject can be taught from books, it is impossible to find a more rational and useful guide than the remarks on auscultation and percussion contained in these pages. The author first gives us the clinical topography of the heart and great vessels, and then in as many chapters treats of the examination of the heart and larger vessels by inspection, application of hand, mensuration, percussion and auscultation. Nor would we have our readers conclude that the examination of a patient's heart by these different methods is an over refinement—a work of supererogation—a splitting of straws. To those who have much opportunity of studying diseases of the heart, cases must have presented themselves in which the employment of every means that could be used was necessary to form a correct diagnosis. It is principally owing to improvements in diagnosis that the maxim prefixed by Corvisart to his work on Cardiac Diseases, published some fifty years ago, "*Hæret lateri lethalis arundo*" becomes daily less applicable. There was a time in which a patient with disease of the heart was placed almost without the pale of medical aid, and as until lately has been the case with phthisis, was condemned to drag out a miserable existence, unrelieved by the resources of our art. There are certain organic diseases of the heart which undoubtedly cannot be cured, but it is in distinguishing between these incurable forms and the functional diseases which admit of relief, that cardiac pathology has made so much progress during the last few years. In his preface to this edition, Dr. Walshe observes:

> "Numerous facts and discussions, more or less completely novel, will be found in the description of the principles of physical diagnosis; but the chief additions have been made in the practical portions of the book. Several affections, of which little or no account had been given in the previous editions, are now treated of in detail. Functional disorders of the heart, the frequency of which is almost rivalled by the misery they inflict, have been closely reconsidered; more especially an attempt has been made to render their essential nature clearer, and consequently their treatment more successful, by an analysis of their dynamic elements."

We think, in connection with this part of the subject, Dr. Walshe might have devoted, with advantage, a short space to the description of the recent discoveries that have been made by Weber, Bernard, and others, on the ganglia of the heart, and on the marked influence on its contractions exerted by the vagus. The curious physiological fact, that irritation of the vagus by electricity, for instance, causes the rythmical contractions of the heart to become much slower, serves to attract attention to the connection between irregular action of the organ and derangement of the viscera.

In speaking of syncope, Dr. Walshe, in alluding to some experiments we performed on the action of certain substances on the heart, has so far misunderstood our remarks as to state the very reverse of the conclusions we arrived at. He states: "The salts of potash, magnesia, zinc, copper and lime injected into the blood by Dr. Blake, appeared to destroy life by specially annulling the irritability of the heart." Now, of the substances quoted it is only the salts of potash which have that effect in a marked degree, and there are many others, such as baryta and the salts of the peroxide of iron,* which are much more destructive of its irritability. On the contrary, the salts of lime, of the protoxide of iron, and of all the metals isomorphous with it exert but slight action on the irritability of the organ. Should the subject be of any interest to Dr. Walshe, he can find the original experiments recorded in the *Edinburgh Medical Journal* for 1844–45–46, and an epitome of them in the *American Journal of Sciences* for January, 1848.

The chapter on the dynamic or functional diseases of the heart is most complete and practical, in the care which has been bestowed in pointing out the peculiar diagnostic marks of these affections, and in the lucidity with which the result of the author's investigations are stated.

When alluding to the inflammatory diseases of the heart, the author after stating the various conditions under which pericarditis originates, observes:

> "I have never seen idiopathic pericarditis as a solitary disease. But in those rare cases of bilateral pleurisy, occurring in healthy individuals, to which I have elsewhere referred, pericarditis is a usual attendant; and has a claim to be considered idiopathic.
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> "Although indubitable examples of these various modes of origin occasionally occur, they are, all taken together, very rare; and, practically speaking, the complaint is scarcely met with in London but as a local development either of rheumatism, or of Bright's disease."

In regard to some of the more important points of treatment, the author after discussing the use of venesection, observes:

> "In cases of medium and of slight severity venesection may, with advantage, be replaced by the application of a few leeches to the præcordial region, or by the removal of blood to the extent of four or six ounces by cupping

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* We would direct the attention of the profession to the results of our experiments on the injection of the persalts of iron into the blood, as now that solutions of the perchloride and persulphate of iron are being used for destroying nærve and vascular tumours, the extremely small doses in which they arrest the action of the heart, if they find their way into the general circulation, should be borne in mind. We think one or two fatal cases that have followed the injection of these salts into vascular tumours might have been owing to their highly toxic action on the heart, a portion of the solution having penetrated into the general venous system.

> And, as far as my own experience of late years is concerned, it would appear that cases of medium and slight severity must, to my apprehension, greatly outnumber those of graver character; for a considerable time has passed since, as far as I remember, I have employed any more active depletory measure than the application of some eight to twelve leeches."

Again, in relation to the use of mercury, he states:

> "Although much has been more or less eloquently written on the powers of mercury in rheumatic pericarditis, especially on the faculty it possesses of causing the absorption of, and repairing the damages effected by, exudation-matter, it must, I think, be conceded, that any precise evidence before the profession fails to demonstrate the alleged powers of the mineral. Ptyalism is with difficulty induced; and when induced does not, of necessity, arrest the exudation of effusion-processes. Dr. Taylor notes that in three of his cases (no very small proportion of the whole number) increase of signs and symptoms manifestly followed salivation; and, it is inferrible, he observed in many others wherein such increase, though less in amount, was not less real as matter of fact. Dr. Taylor's data indeed, taken as a whole, distinctly argue against the efficacy of mercury. He refers to the frequent occurrence of sundry acute inflammations during the progress of salivation, induced for the intended cure of others. For my own part, I have known pericarditis supervene in a woman while under treatment for ptyalism, so severe, that for some hours after her admission into hospital for the cure of that ptyalism, life was in danger from semi-asphyxia, and tracheotomy on the point of being performed. Mercury is supposed to act in inflammations by diminishing the quantity of fibrin, yet M. Andral found hyperinosis in four cases of mercurial stomatitis.
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> "I must admit that year by year my faith in mercury has waxed less strong—and that a long period has elapsed since I have made even a deliberate attempt to salivate a pericarditic patient."

We have not space to farther enlarge on the therapeutics of our author in this disease, but we consider them eminently practical, and affording valuable indications not only for the treatment of cardiac diseases, but of inflammatory affections generally. Amongst other additions, we notice in this edition, are the remarks on the intracardiac blood concretions. This subject has within the last few years attracted a great deal of attention, and many cases of sudden death, of brain softening, of diseases of other viscera, and of local gangrene have been shown to be connected with the formation of coagula in the heart and blood-vessels. We are of opinion that the frequency of this phenomenon is much greater at present than it was some twenty years ago. In the post mortem examinations we have made during the last three years, ante-cadaveric coagulation has been found in a large number of cases, certainly in a far greater proportion than we were accustomed to meet with it formerly. Being a believer in a change of the type in disease during the last thirty years, and, consequently, of some altered condition of the fluids or solids, we are willing to look on this greater tendency of the blood to coagulate in the heart and larger vessels, as connected with this change. Certain we are that had these semi-organized concretions, moulded to the cardiac orifices, as they so frequently are, been met with so often in years that are gone by, they must have attracted more attention.

We regret that want of space prevents our following the author in his description of the diseases of the vessels, and of calling attention to the admirable hygienic treatment, by which the sufferings caused by incurable diseases of the heart and blood-vessels can be so much alleviated, and by which even an endurable existence can frequently be prolonged for many years.

We can most conscientiously recommend the work to our readers, as affording the most complete and philosophical treatise on the subject of diseases of the heart that has yet appeared.

EDITOR'S TABLE.

WITH the present number, we relinquish our position as Editor of the PACIFIC MEDICAL AND SURGICAL JOURNAL. When we undertook the editing of it, we did so with the firm conviction that we should be able to enlist a considerable number of contributors of articles for its pages. We had received promises from many of our professional brethren, and had our anticipations been realized, the task we had undertaken would have been far lighter than it has proved. Unfortunately, our hopes in this respect have been disappointed, and we have failed to obtain that assistance from the members of the profession in the State which we had expected. In our introductory remarks, when taking charge of the JOURNAL, we observed: "An editor of a journal whose pages are but filled with cullings from other sources, cannot carry on his undertaking with any heart, and unless we can enlist the support of a numerous body of contributors we certainly shall feel inclined to vacate our position." We have tried it for ten months; we have not succeeded in enlisting the co-operation of a numerous body of contributors; we believe our time can be more profitably occupied by private practice and original investigations, and therefore we vacate. We trust that under new auspices, members of the profession in the State will render the task of our successor more agreeable and less laborious.

JAMES BLAKE.

HEALTH OF SAN FRANCISCO.—During the month of July, the number of deaths reached to 199, being a considerable increase over those of the preceding month. The principal mortality seems to have been amongst children, particularly amongst those of the lower classes, as of the interments in the Roman Catholic cemetery the proportion of those of children under three years of age was more than 54 per cent., whilst in the Protestant cemetery the interments of children under three years of age were but 32 per cent. of the whole number. It is impossible to judge of the significance of this apparently startling fact, without more accurate knowledge than we at present possess of the relative number of children and adults in the two classes of our population, but we are convinced that even the relative mortality amongst our poorer classes is far greater than it should be were proper attention paid to the sanitary condition of the city. It is on children that sources of disease in our midst first exert their influence, or, at least it is through them that they most plainly indicate their existence, but the whole population must suffer, and our city will lose the advantages its location and climate afford it under a sanitary point of view, unless means are taken to counteract those sources of disease which are always engendered when a city becomes densely populated. In the absence of any system of registration, it is difficult to ascertain to what diseases the large infantile mortality is more particularly owing. From the data afforded by our own private practice, we are led to conclude that diarrhœa has been the disease which has proved most fatal. Amongst 121 interments at the Lone Mountain cemetery, there was but one death recorded for each of the following diseases, viz., small-pox, measles, scarlet fever and diphtheria, showing the absence of the more ordinary forms of epidemic disease.

In the last number of the Journal, we remarked on the advisability of appointing a health officer for our City. If we wish to maintain the high character for salubrity which our City enjoys, and which of itself is a great element of prosperity, means should be taken to remove and counteract, as far as possible those sources of disease which are inevitably produced where large numbers of human beings are congregated together; and this object can only be attained by the appointment of some competent officer or Board of Health to exercise a supervision over all subjects relating to the sanitory affairs of the City. Dr. Williams, in a lecture delivered before the College of Physicians of London observes in relation to this subject:

> Prevention is assuredly among the noblest aims of Medicine. The success which has attended the application of medical science to the prevention of zymotic disease is one of its greatest triumphs. It is by keeping in view this object that we have been able to prevent the rising of pestilence from air, earth, water, or to render it harmless. Honor to the man who found the way to stop the plague of small-pox, and proved that the seeds of the disease transferred to another soil might be made to germinate with a healthy and saving influence. This preventive success is a great glory to our art and to our nation. Does not the discoverer of vaccination deserve the highest honor which the State can confer on him? If we raise in the public forum statues to the heroes of a hundred fights—a Nelson, a Havelock, a Napier, shall we banish into obscurity that of Jenner, who saved more lives than they sacrificed, and prevented more slaughter than they occasioned? I recognise the public services of these great soldiers, but I do not the less feel that to disgrace the statue of such a man as Jenner is an outrage on humanity. But I grieve to say that it is in accordance with the ignorance which so many of the upper classes have displayed on cognate scientific subjects, and which procured so many supporters among their number for the follies of various kinds of medical quackery.
>
> Another example of the value of preventive medicine is furnished by the recent history of the sanitary form in the British army. The mortality of the British army previously was immense. It was a disgrace to the public charac-

ter, and to those who systematically neglected medical counsel. It is the fashion now-a-days to hold up the stumblings of Medicine to the public gaze, and to invoke ridicule and censure; but if the faults and defects of the public offices—if the deficiencies and errors of the other departments of professional labor, were sifted with as invidious and jealous an activity, there would be few left to smile without wincing at their own uncovered sores. The moment that medical aid was invoked by authorities to prevent the excessive mortality of the army, the figures of death were reduced with triumphant rapidity. A few numbers will illustrate this. Within the space of five years the mortality of the Foot Guards is shown by Dr. Farr to have fallen from 20 to 9, of the infantry from 18 to 8. So that, notwithstanding all the complaints of cold and discomfort which we hear from Aldershott and Shorncliffe,—complaints incidental to any form of soldiering,—the standard of health is now very high. In war the improvement is still more striking. And here let it be remembered that this great saving of human life has been primarily due to no official personage, but to a lady—Miss Nightingale. It was she who summoned the authorities and the nation to take council with physicians and engineers, and to apply to the army the laws which preventive medicine had already established and applied in civil life. The result of the Chinese expedition was fully to prove how great had been the saving of life thus achieved. In the Crimean War the sick in hospital were nearly seven times the number of killed; while in the Chinese War they were nearly equal. The relative proportions of zymotic sickness in the two campaigns were as 6 to 60.—*London Lancet.*

The above extract showing the great advantage of the appliance of sanitary science in diminishing the mortality in the British army, is but one of many that could be cited. Many of the large towns in England which have organized Boards of Health to superintend their sanitary affairs, would furnish equally striking proofs of decreased mortality in that large class of diseases which have their origin from causes capable of being removed or counteracted.

* * *

ARRANGEMENTS have been made to prepare for publication a "Medical and Surgical History of the War." The medical portion of this work has been committed to Assistant Surgeon J. J. Woodward, United States Army, and surgical part to Brigade Surgeon John H. Brinton, United States Volunteers. All medical officers are requested by the Surgeon-General to co-operate in the undertaking by forwarding to his office such reports, &c., as may be of value for the work.—*Boston Medical and Surgical Journal.*

* * *

PARALYSIS FROM THE VIPER'S BITE.—Dr. Guyon has sent in an interesting communication on the effects of the sting of a horned viper (Cerastes Ægyptiacus), on an Arab on the oasis of Laghouat, 120 leagues south of Algiers. After a lapse of a month, during which the wound had healed, the patient was attacked with paralysis on the side opposite that where the sting had been inflicted. The author quotes several instances of this curious fact of paralysis ensuing after the bite of a reptile, and on the side opposite to that which had received the wound.—*Lancet.*

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A WORK EVERY PHYSICIAN WANTS.

See the annexed Letter of the late JOHN W. FRANCIS.

SUMMARY OF MEDICAL SCIENCES,

COMPRISING THE ESSENTIALLY

PRACTICAL ARTICLES EMBRACED IN

Braithwaite's Retrospect, Ranking's Abstract, The London, Dublin, Edinburgh Medical Journals. French, German, and other Continental Medical Periodicals, commencing with 1860.

The whole in as concise a form as may be consistent with their respective merits in view of presenting to the Profession—THE CREAM OF MEDICAL LITERATURE. In addition to such resume will be embodied contributions from eminent American Physicians and Surgeons. Edited by

BY WALTER S. WELLS, M. D.,
Compiler of the Epitome of Braithwaite's Retrospect.

The first part of the SUMMARY OF MEDICAL SCIENCES will be ready April 1st, and will be published semi-annually. Each part will contain about 300 octavo pages of closely printed matter—uniform with "THE EPITOME" —and will be classified and paged for the convenience of binding under the respective headings of—

Practical Medicine, Surgery, Midwifery, Chemistry and Toxicology, and Materia Medica.

To W. S. WELLS, M. D.—DEAR SIR: You have successfully accomplished a great work, by your "Epitome of Braithwaite's Retrospect of Practical Medicine and Surgery," and I hardly know in what manner you are to be adequately remunerated for the vast labors you have so judiciously appropriated to so useful an undertaking. Your still more novel project, just announced, in the contemplated publication of a "Seriel," under the title of "A Summary of Medical Science," to be derived from a still wider field of Medical Literature, has claims to consideration even greater than your "Epitome," and not a doubt can exist that the learned and the liberal, the scholastic and the practical, will embrace the opportunity to justify your most ample desires to establish a periodical of such rare excellence as must necessarily be formed from the sources of knowledge you specify. To those who seek economy even in the purchase of professional books, your plan of concentrating the essence of the scientific and medical investigation of the world at large, within the compass you announce, must receive a powerful patronage and can not be looked on with indifference, and for the best of reasons:—your great labor will prove profitable to the entire Medical Profession. You will save them money, and what is of more consequence, you will economize their time. That immense benefit will accrue to the noble science of healing, by your devotion to your new undertaking, the most competent will be the loudest to affirm.

JOHN W. FRANCIS, M.D., LL.D.

THE

Pacific Medical and Surgical Journal.

INTRODUCTORY.

> "Considerare morbos oportet qualiter
> et quibus, quas formas habeant,
> in quâ locâ versi sint."
> HIPPOCRATES.

IN assuming the Editorial duties of the PACIFIC MEDICAL AND SURGICAL JOURNAL, we would earnestly call on the Physicians and Surgeons of the Pacific coast for a liberal support. That California is honored by Physicians of superior acquirements, excellent observers, and ready with the pen, no one acquainted with our body-medical can doubt. Unfortunately, thus far, but few of them have published the results of their observations and experience. Why is this so? Can it be from indifference? We hope not; for we cannot understand a man who calls himself a physician, and who does not take a most lively interest in every thing appertaining to the profession.

The medical literature of the Pacific coast is still in its infancy. But little, as yet, has been done towards "prospecting" the pathological mines before us. A rich harvest—a true California harvest—is the prize offered to the laborer. Themes full of interest abound. Shall we specify some? Take, for instance, the following: *The climate of California, and its influence on health and disease.* Able and well-digested monographs on the above subject, accompanied with statistics, would, we are satisfied, do honor to the writers, and be well received by the profession at large. The subject mentioned is suggestive of many details, and to cite but a few, we would ask: In a comparative sense, is the tendency of disease in California sthenic or asthenic?

An experience of many years, leads us to think that cases of general plethora and diseases assuming a purely inflammatory type are not as common here as we have observed them elsewhere. We have never before been in a country where the acute inflammatory symptoms pass so rapidly into the sub-acute. The full, hard, bounding pulse, symptomatic of active hyperæmia, and requiring free and repeated venesection, is, it seems to us, comparatively seldom met with in this country. Indeed, even in the phlegmasiæ, in pneumonia, in pleurisy, experience, we believe, has taught California practitioners a prudent reserve, in not carrying the antiphlogistic course to that extent which is insisted upon, by the large majority of our authorities, as the *anchora salutis* elsewhere. On the other hand, are not tonics generally indicated at an early period?

Although, as suggested by the preceding remarks, diseases in this climate often assume a typhoid, or rather an asthenic character, yet are not cases of true typhoid fever (dothenenterite) comparatively rare? We think they are. But we do not pretend to answer the question in this summary manner. We leave these suggestions for more serious and attentive study.

But are these remarks applicable to California alone, or have diseases within the last twenty-five years been similarly modified throughout the world? We all know that the antiphlogistic system, inaugurated by the celebrated Broussais, so extensively followed within the recollection of the senior members of our profession, has given place to a very different practice, and is now adhered to only by Bouillaud, and a few other of the most enthusiastic pupils of that eminent man. How can we account for the change, which is, we are told, much more complete everywhere in actual practice, than we would be led to suppose even by the perusal of our most recent works on medicine. Were physicians right in bleeding twenty-five years ago? Are they correct now in so generally abstaining from it?

These great and important questions are of recent date. They gave rise to "The blood-letting controversy of 1857–8," in which Dr. Bennett, the distinguished Professor of the Institute of Medicine in the University of Edinburgh, sustained, with his usual ability, the following propositions:

1. That little reliance can be placed on the experience of those who, like Cullen and Gregory, were unacquainted with the nature of, and the mode of detecting, internal inflammations.

2. That inflammation is the same now as it has ever been, and that the analogy sought to be established between it and the varying types of fevers is fallacious.

3. That the principles on which blood-letting and antiphlogistic remedies have hitherto been practiced are opposed to a sound pathology.

4. That an inflammation once established cannot be cut short, and that the object of judicious medical treatment is to conduct it to a favorable termination.

5. That all positive knowledge of the experience of the past, as well as the more exact observations of the present day, alike establish the truth of the preceding propositions as guides for the future.

Therefore, he concludes that the recent changes in therapeutics have been occasioned by an advanced knowledge of diagnosis.

Dr. Alison, however, had already taken a different view, attributing the causes for which blood-letting is less in repute now than it was formerly to constitutional changes,—to a modification of disease. He and his supporters maintained that inflammation is no longer the same, that its type, and more especially the febrile symptoms accompanying it, have altered from an inflammatory to a typhoid character.

Where does the truth lie? Probably, to a certain extent, on both sides. We believe with Dr. Alison, that the type of inflammatory diseases has actually assumed a much lower character within the last quarter of a century, perhaps lower in California than any where else. Nor is it necessary to exact a rigid *onus probandi* to satisfy us that such is the case. General observation is stronger proof than ingenious theories. It is sufficient for us to have witnessed these changes with others, to know that they have taken place, in the same way that we know that in epidemics the character and symptoms of disease change according to the prevailing medical constitution, although we cannot explain why and how it is so, because we are far, indeed, from understanding the influence of atmospheric and telluric phenomena on the human constitution. Nor does this view of the question, in our opinion, invalidate Dr. Bennett's *conclusion* "that our immediate predecessors were led to use the lancet too freely by pathological ideas, modern improvements and discoveries have shown to be erroneous."

What is the ratio of mortality after important surgical operations in California? Does not recovery follow serious wounds here much oftener than in the Eastern cities? In wounds penetrating the thoracic and abdominal cavities, are not the serous membranes comparatively less subject to subsequent violent inflammation here than elsewhere? From the data we possess we would be inclined to decide both of the last queries in the affirmative, but we submit them to the profession, and would be glad to receive the results of the experience of others. Should it accord with ours, the question arises: What appreciable cause can we assign for this? Is it due to systemic changes gradually acquired by a residence on this coast, affecting the proportions of the organic elements of the healthy blood, and thus rendering it less liable to acute inflammatory action; or, is this independent of constitutional changes, and solely resulting from external climatic influence?

Be this as it may, is not California entitled to be considered one of the healthiest countries in the world—remarkable by its almost entire exemption from endemic maladies? Will it be objected that diphtheria did a few years since make sad ravages amongst our children? But the violence of the epidemy did not last long. It soon took a sporadic character, and the mysterious causes which brought the visitation upon us were afterwards felt with greater intensity in the Atlantic States, England, France, and other portions of the globe.

We know of no climate in which the diseases of infancy and childhood are generally more simple and more amenable to treatment than in this. Of course, we occasionally meet here, as elsewhere, cases which baffle the skill of the most skillful: of course malignant eruptive fevers, serious cerebral, pneumonic and gastro-enteric affections sometimes occur and prove fatal; of course here, as elsewhere, when the germ of disease is entailed by the parent to the child, the latter sometimes becomes its victim during early infancy, or feels more or less its effects through life. This we do not deny.

But what we mean to say is, that California will compare advantageously with any other country in the general health and physical development of its infantile population.

Cholera infantum, that scourge of childhood, which counts its yearly victims by hundreds in many Eastern and Western cities of North America,* is comparatively rare, and assumes a much milder character in California. It may be said that the local climate of San Francisco is antagonistic to the affection. Let us, therefore, take Sacramento for comparison. The statistics of mortality of that city, with an average population of 15,000 inhabitants, show that during eight years, viz., from 1850 to 1858, the deaths from cholera infantum only numbered thirty, occurring thus:

In 1850 - - -	3 deaths	In 1854 - - -	1 deaths
In 1851 - - -	0 „	In 1855 - - -	5 „
In 1852 - - -	0 „	In 1856 - - -	12 „
In 1853 - - -	1 „	In 1857 - - -	8 „

A very small ratio indeed; and how many of these might have been saved by a timely trip down the river to the refreshing atmosphere of the Bay of San Francisco? The question deserves consideration, more for the future than the past.

Many other curious and important facts may be derived from a careful study and analysis of the records of mortality of our different cities; unfortunately, up to the present time, with the exception of Sacramento, we have no complete tables. It gives us pleasure to acknowledge our indebtedness to Dr. Thos. M. Logan, of that place, for the full and valuable statistics we owe to his persevering industry.

We have often heard it asserted that the proportion of women suffering from affections of the uterus was greater here than elsewhere. From the number of cases which have fallen under our observation, we would be inclined to a confirmatory opinion, were we not arrested by the fact that the same proportional increase has been observed in almost every other part of the world, and is in great measure accounted for by the fact that our knowledge in the diagnosis of this class of diseases is infinitely superior to what it was a half century ago; and many cases, which were then erroneously assigned to other causes, are now correctly diagnosed. It is, indeed, of this as it is of many other affections, which were not attributed to their real causes, until the pathological school of the nineteenth century dispelled the error. Take, for instance, diseases of the heart. Fifty years ago, they were considered among the most uncommon. Since then, the illustrious Laennec, Bouillaud, Hope and others have, pleximeter and stethoscope in hand, taught us how to diagnose them; and now, not only are they known to be of frequent occurrence, but various other affections which were supposed to have no relation to the central organ of circulation, are with certainty traced to it. The same may be said of diseases of the lungs; and we can no longer exclaim, as Baglivi did towards the close of the seventeenth century: "*O quantum difficile est curare morbos pulmonum! O quanto difficilius eosdem cognoscere!*" The last of these difficulties, then esteemed the greatest, no longer exists—would that we could say the same of the other also!

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* In Philadelphia, during the last year (1861) there were 618 deaths from cholera infantum. "Of this number 538, or 85 per cent., occurred in the third quarter, July, August and September. Whilst peculiar to children, it is particularly so to those under two years. In the present instance, 572, or 92 per cent. of the deaths were within that term of existence, which embraces the "second summer," a season so much dreaded by mothers, and not without cause, for its destructive tendency to infant life."—*Amer. Journal of Medical Sciences, pp.* 380-381, April, 1862.

But to return to our subject. The following quotation from Dr. Bedford, of New York, is pertinent. The distinguished Professor, addressing his class, says: "You will frequently be asked, in the course of your professional duty, why is it that the diseases of the uterus are so much more common now than they were in former times; and you will occasionally meet with good old grandmothers, who will shrewdly remark: 'Why, Doctor, when I was young, I never heard of ladies having these complaints; what is the reason we hear so much about them now?' This question is readily answered. It is not a necessary sequitur that, because diseases of the uterus were not recognized, they did not exist. These affections, although no doubt much enhanced by the increasing neglect of the general ordinances of health, are of no recent date; on the contrary, they have formed their part in the catalogue of human suffering, and have not been inactive in the work of death from the earliest periods of creation. The revolutions of the sun, and the wonderful machinery of the physical world, were no less perfect thousands of years ago than they are at the present time; and yet, how profoundly ignorant was man of the true nature of these things—how inadequate to explain what then appeared to him deep mysteries, beyond the ken of human intelligence! Where are these mysteries now? They have yielded to the progress of science—they have become universal truths, perfectly understood, constituting the every day lessons of the school-room!"

This is a subject well deserving our solicitude, and it is gratifying that, whether these affections are more frequent now than heretofore, thanks to such men as the gentlemen we have just quoted from, Recamier, Simpson, Sims, Hodge, Meigs, Scanzoni, Nonat and others, our means for relieving and curing them have been brought to such perfection, that that class of diseases contributes but little towards swelling our records of mortality. Is a proof of this assertion desired? Let us again consult our mortuary tables. In Sacramento, from 1850 to 1858, the deaths under the general heading of "diseases of the generative organs" are reported thus:

1850	0	1854 (3 parturition, 1 ovarian tumor)	4
1851	0	1855 (1 parturition, 1 schirrhus uteri)	2
1852	0	1856 (2 parturition, 1 rupture uterus)	3
1853 (1 parturition)	1	1857	0
Total			10

Thus, for a period of eight years, only ten deaths are attributed to these affections, eight of which (seven from parturition and one from rupture of the uterus) were probably independent of any organic affections, leaving only two deaths which can properly be attributed to diseases of the uterine system,—one from schirrhus, and the other from ovarian tumor!

Not only in the uterine affections, but in other diseases peculiar to women, our science has of late made immense progress. A monograph, for instance, which would have contained a complete description of all that was known of puerperal convulsions a few years ago, would be sadly behind the times today.

The fact is, never was medicine in a more progressive condition than it is at present. Chemistry and histology, aided by the microscope are unveiling truths to us no less important than those revealed by percussion and auscultation. The day for *a priori* theories is past, and we are now reaping the fruits of the patient, enlightened school, inaugurated by such men as Bichat and Louis, and which does honor to our century.

To inform our readers of the progress in different branches of the profession, is one of the duties we shall endeavor to perform with assiduity. But we should not be satisfied with taking from other sources. California should contribute her full proportion to this noble and philanthropic work.

It is an error entertained by some that none but extraordinary and wonderful cases should be reported. This is altogether a mistaken idea. It is not he who seeks notoriety by such means only, who is the most useful or becomes most eminent in the profession—but he who takes a minute and exact account of all the causes, of all the symptoms, the progress, duration and termination of disease, as it is generally met with. The object of such a man is higher than the mere gratification of personal ambition. He has no vain theory to sustain. The whole economy is subjected to his analysis; the solids, the fluids, the nervous system in connection with the vital energies are examined separately and together. Age, sex, habit, climate, etc., etc., are taken into consideration. His diagnosis is founded on observation of facts, and needs no subtle arguments, no abstruse reasoning to sustain it. His treatment is that which experience has sanctioned, and he does not deviate from it lightly and without good cause. His medical faith is based on stronger and surer foundations than that of the rash experimentalist, who, ignoring, in his wandering dreams, the accumulated experience of our predecessors, imagines that he has a new remedy for every disease.

Prudent, but not timid, when such a man, after repeated, careful and patient investigation, thinks he has discovered some new and important light on some obscure and unsatisfactory point in our science, then, in a commendable spirit, he publishes it to the world, that his judgment may be tested by the experience of his compeers, and that he may determine by their verdict whether he has not been led astray by some *ignis fatuus*.

If diseases always assumed the same uniform character, if they were not everywhere modified by a thousand circumstances—by climate, habits, constitution, etc., etc., medicine would have assumed, ere this, a degree of positiveness more nearly allied to the exact sciences. And if these anomalies are becoming better understood every day, it is because they are closely observed by able men, who give the results of their investigations to the world, through the easy and inexpensive medium of the medical press.

That the pages of this JOURNAL may often be filled with articles possessing all these best qualities, depends on the will of the profession in California. We therefore call on our confreres, for the honor of our State and our profession, to do their part. For ourselves, in all the affairs connected with the editorial department of this periodical, we shall ever be ready to extend to them all the facilities which professional courtesy demands.

In accepting our task, we are fully aware of the many difficulties which surround us, the most unpleasant of which is a deplorable want of professional cordiality and friendly intercourse amongst physicians of respectable standing in California. Differences, in many instances of a petty nature, have unfortunately divided the medical corps into numerous cliques, resulting in crimination and recrimination, benefiting no one, but on the contrary, highly prejudicial and derogatory to the individual interest and standing of all. It is time that this state of things, so unbecoming, so undignified, so unprofessional, should cease. Physicians should have but one object—the welfare of humanity; but one guide—an honorable code of ethics, based on principles easily understood, and never to be deviated from, for pecuniary or other motives, by all who wish to be respected.

If, by earnest endeavors, we can, in our present position, contribute, in any measure, toward bringing about a more satisfactory relationship, we shall esteem ourselves happy. But to accomplish this, we must be aided by others. It behooves each and every one of us to do his part.

V. J. FOURGEAUD.

* * *

OPIUM IN HYSTERIA, &C.—According to Dr. L. Meyer, opium is of especial use in hysterical alienation, which in its acutest and most aggravated form exhibits itself as ecstacy, always associated with religious or erotic mania, most often with both. Under the influence of opium the paroxysms cease. The indication for its use thus oftenest occurs in the female sex; but a complete condition of hysterismus may also be induced in man by masturbation and other debilitating influences. Opium is also of utility after the debilitating conditions of the puerperal state, and after uterine hemorrhage—the mental disturbance and the hemorrhage being only regarded as co-ordinate symptoms of hysteria. It is of service in other conditions of debility, although its influence is not exerted against the cause of such debility. Contra-indications are acute idiopathic cerebral irritation, and an inflammatory character of the disease. Dr. Meyer commences with two grains, repeated in two hours. If repose and sleep are obtained, it is discontinued. At all events, after four such doses, there must be a pause of from six to twelve, when the opium is repeated as before, if still required. Some times it seems to be absorbed only to a slight extent, and obstinate diarrhœa is rather to be feared than constipation. In very urgent cases, the first dose may be raised to three or four grains; while in great gastric sensibility and inclination to vomit, it may be diminished to one grain, and repeated hourly. Opium enemas are not recommended, but the injection of a solution of morphia into the cellular tissue is useful.—*Schmidt's Jahrb.*, *American Journal of Insanity.*

SELECTIONS.

Letter from London.

Professor Chas. A. Lee, who is at present in England, is writing a series of interesting letters on medical subjects for the *American Medical Times*, from which we extract the following:

London, June 1st, 1862.

The London surgeons operate more fearlessly, and with more rapidity than ours do on our side of the Atlantic; but I very much doubt whether more successfully, except in particular cases. Thus I saw Mr. Ferguson operate for double cleft palate last week, and the operation was completed in fifteen minutes. He afterwards informed me that the average duration of the operation of staphyloraphy in his hands was ten minutes, and that out of one hundred and five cases, he had met with complete success in one hundred and two. This must be admitted to be extraordinary activity and success, but much is owing to previous frequent manipulations by the finger of the patient, or a tooth brush, of the fauces and parts adjacent, and to the very free separation of the velum palati from the bone, so as to allow great distension. The profession is indebted to Mr. F. for this practice, which he introduced many years ago, but which has recently been claimed by another surgeon as having originated with him. In the removal of scirrhous breasts, which I have seen done by Mr. Paget, Mr. Skey and Mr. Ferguson, I think the average time employed in the operation was not over two minutes, although in every case chloroform was given, and generally by an inhaler, which admits freely the atmospheric air. One great advantage attending this mode, is that we can regulate exactly the quantity administered; usually from twenty to thirty drops are introduced, and it is rarely necessary to use any more. This shows, at least, how much our surgeons are in the habit of wasting, in their mode of administering it on a sponge or napkin; and by the way, I may mention that a death from chloroform has occurred near my lodgings within the last few days under the following circumstances: The patient was laboring under fistula. Chloroform was given on a napkin. It appearing to take no effect, more chloroform was poured on, and this was repeated twice. On the third application the patient turned over, and immediately ceased to breathe. All attempts to restore respiration failed. Autopsy showed that the walls of the heart were very thin, and the cavities dilated, with great insufficiency of both mitral and triscupid valves. There was also fatty degeneration of the organ. Both lungs were strongly adherent to the chest. Throughout the greater portions of their extent, Dr. Gant, of the Royal College of Surgeons, testified on the inquest, that owing to this thin and enfeebled state of the heart, and to the lungs being incapable of expanding from the extensive adhesions, they necessarily failed under the influence of chloroform, and death resulted instantaneously from paralysis of the heart. I think the case goes far to show that the condition of these organs should be correctly ascertained, if possible, before we venture to give this powerful agent.

I have said that the British surgeons operate with more celerity, but perhaps not more success than American surgeons. If I wanted proof of this, I might quote lithotomy statistics. According to Mr. Bryant (London *Lancet*, p. 451) at Guy's Hospital, fifty-seven per cent. of patients above the age of forty, who have been operated upon for stone, have died, and the gross result of lithotomy in the provinces is about the same as at Guy's. There are, however, instances where the mortality is not so great. Thus in the Norfolk and Norwich hospitals, only twenty-three per cent. of patients above the age of forty have died after lithotomy. But if any one will compare these results with those of American surgeons, as recorded in Gross's Surgery, he will find that the percentage of deaths is far greater than with us. Indeed, one of the most distinguished operators for stone in London told me, that he believed the fatality of this operation in Great Britain was as great at the present time as it was one hundred years ago!

I am very glad to find that in the ophthalmic hospitals of London and the provinces, as well as in the military hospitals, as at Chatham, the *ophthalmoscope* is in general use and highly appreciated. In no branch of our art have I seen such decided improvement within the last twelve years, since I was here, as in ophthalmic surgery; and much of this progress is owing to our being able to explore the deep textures of the eye by the ophthalmoscope. This admirable instrument was nearly perfect, when introduced a few years ago by Helmholz; and now there is but one opinion as to its effectiveness, and to its immense importance, in enabling us to investigate diseases, especially of an obscure nature, in this delicate organ. And what surprises me, is to see the degree of tolerance of such examinations, in almost every kind of ophthalmic disease; a result we certainly should not have looked for *a priori*. Temporary dimness of vision may in some cases be induced by its use; but by a proper regulation of the quality of light admitted into the eye, we may employ it with advantage in acute glaucoma, or even in retintis. A metallic speculum is now preferred for the instrument instead of glass, as it is more portable and less brittle, has a small, thin-edged sight hole, and but one reflecting surface. Besides, a metal reflector always gives a clearer and better defined image than a glass one. It is true that some experience is necessary to enable one to derive all the advantages from this instrument of which it is capable; but the same may be said of the stethoscope or any other instrument. *The division of the ciliary muscle of the eye* for glaucoma, opacity of cornea, etc., may also be mentioned, as evidence of progress in the treatment of this class of diseases. This operation I saw performed several times, and very skillfully, by Mr. Hancock of the "Royal Westminster Ophthalmic Hospital," and with decided benefit. Thus, out of 511 principal operations performed at this institution during the last year, I find that this operation has been resorted to in 118 cases. Of a variety of affections, about 1,000 patients are here annually treated, and there is no better place for students to study this class of diseases.

Mr. Czermak, of Prague, the inventor of the *Laryngoscope*, has been in London recently, and showing upon himself how readily and successfully the instrument may be used. Mr. Paget speaks favorably of it, but doubts whether it can be successfully introduced into practice. It is something like injecting the bronchial tubes—very easy to describe, and very difficult to accomplish. Mr. Czermak showed, as long ago as 1859, that it was possible by the aid of his laryngoscope, to apply local cauterizations in the larynx and the naso-pharyngeal cavity; but the same can be done without. But then, how can we ascertain whether there is disease enough to require local treatment? In some cases, probably, we cannot, but as a general rule I think we can. The rational signs, in such cases, are generally pretty clear and decided; I know that we have reports that the polypi of the larynx have, in two cases, at least, been removed by the aid of this instrument. But, as Mr. Paget remarked to me, it must always be a very difficult operation, inasmuch as the image is reversed, and every one knows how very difficult it must be to operate under such circumstances. Here, we have to introduce the laryngoscope with one hand, and keep it immovable in such a position and inclination, as to reflect the desired image, while with the other, holding a suitable instrument, we proceed to operate. But the difficulty I have named is so great, that it would require a constant practice, and for a considerable time, to enable a surgeon to attain even a moderate degree of success in the use of this instrument. Owing to these causes, the laryngoscope has been, as yet, very little used in this metropolis, and I predict it will be a long time before it is. The inventor, however. is a very talented and ingenious surgeon, and certainly deserves, if it does not meet with, great success. That scientific merit, sooner or later, meets its just reward, I may mention the splendid and unprecedented success, which has attended the career of our friend, Dr. Brown-Sequard, since he came to this city. In no instance has great professional success created less envy, inasmuch as all cheerfully acknowledge that it has been fairly earned. As the head of the great "National Hospital for the Paralized and Epileptic," instituted by the Lord Mayor, at the Mansion House, Nov. 2, 1859, and under his presidency, and supported mainly by the nobility, Dr. Sequard has found a theatre worthy of his science and his skill; and with considerable success, which has attended his efforts, demonstrates the soundness of the physiological and theological views he has inculcated in his various writings and lectures. This success, moreover, has, as its fair and legitimate consequence, introduced him into the largest practice, in the greater part of nervous affections, of any practitioner in England. The out patients at his hospital number at this time over eight hundred, while his private patients are so numerous as to occupy every moment of his time. He is called on daily by patients from almost every part of Great Britain, and no small portion of them belong to the class of the nobility. Surely, such an example as this may well be held up to the younger members of our profession, to show them that industry, perseverance, energy and real merit, will sooner or later meet its due reward. I may also mention, by way of example, that since Brown-Sequard commenced his scientific investigations, he has never attended a place of amusement, or allowed anything to draw off his mind and attention from his pursuits; and although he resided in Paris, at the time of the great International Exhibition, and daily passed by the building, he never entered it, and has no idea, to this day, what there was in it.

* * *

THE ARMY IN WESTERN VIRGINIA.—The *Buffalo Medical Journal*, for January, 1862, contains a letter from a soldier in the army of Western Virginia, translated from a German paper, giving an account of the abuses to which the army is subjected, by sutlers, surgeons, etc. "In the hospitals at Sutton," he says, "it was horrible to see these unfortunates lying scattered upon the floor, without receiving proper treatment and medicines, and without hardly ever being asked where and from what they suffered; the surgeon did not deem it necessary to examine the patients, but contented with asking the steward 'How are they all this morning?' to which he received the usual reply, 'All right!' except some had grown seriously worse, and some had died during the night." The writer bears testimony to the efficiency and kindness to the sick of Dr. Chas. R. Minne, U. S. A., son of the eminent surgeon of Buffalo. This young surgeon was on Gen. McClellan's staff in Western Virginia, and is rapidly acquiring an enduring reputation.

Parisian Medical Intelligence.

(From the Special Correspondent of the London Lancet.)

A funeral oration pronounced at the tomb of M. Bretonneau by the oldest and certainly not the least distinguished of his disciples, M. Velpeau, merits some notice, as happily pourtraying the leading characteristics of the illustrious veteran of Tours, who has recently passed from amongst us. "His great reputation," observed M. Velpeau, "was due neither to a fortuitous combination of circumstances, nor to the influence and interest of the great. The celebrity he attained was unsought by himself, and was unconnected with either academical triumph or popularity-hunting. Absorbed by the pursuit of science, and at a distance from the social crises of his generation, he acquired fame unwittingly. In order to be just to Bretonneau, his character should not be estimated by the common standard of men; his life, his thoughts, his actions were wholly unlike those of others. His hours for work were irregular, as were his times for repose and refreshment, when an object or occupation arrested his fancy, his pursuit was incessant and untiring. Whilst engaged in the investigation of typhoid fever and diphtheria, he would turn his back on those who spoke to him on any other subject. If the bell rung, he would say to me, "Go, my friend, and inquire whether the case be one of either sore-throat or fever: if so, I shall attend immediately; if otherwise, say that I am not at home." Did he, on returning from his morning visit to the hospital, by chance step into the garden, his patients were no longer thought of, and his mind became absorbed by grafts, and his settings. In operation for cataract on one occasion, he found that the form of needle then in use was inconvenient; he immediately set about inventing another (that now commonly employed). For fear of being misunderstood by the workman, he insisted on forging it himself, and for three days could not be persuaded to leave his workshop. A similar occurrence took place with regard to certain vaccine tubes. When interested in a case, he would remain for hours at the bedside of a patient, returning as often as be believed any knowledge was to be gained from the study of the particular malady. His object was neither the gratification of vanity, nor glory; but simply the extension of science and truth. During the epidemics of sore-throat and fever, his brother-practitioners, in refutation of his doctrines, maintained that the morbid appearances observed by Bretonneau at the hospital differed from those noticed in private practice. To obtain autopsies with the consent of the friends of the deceased was most difficult; nevertheless, Bretonneau was determined to carry his point, and, with my assistance, at night, no less than thirty-six post-mortem examinations were clandestinely obtained by exhumations of the dead. On more than one occasion, our profanations were suspected, and we were fired upon. I have every reason to remember the circumstances, from the fact that I still possess a shot in the thigh in *souvenir* of my nocturnal expeditions. Bretonneau was triumphant; the scientific problem was solved: the pathological lesions occurring in private practice were found to be identical with those observed in the hospital. Bretonneau had an investigating and independent mind, at once deep and penetrating. He was an accurate, sagacious and original observer. Whatever he touched he fully explored; and nothing left his hands without having been modified, improved, or completed. In conversation he was rich in instruction and full of practical deduction. It might have been expected that such a man would die master of a great fortune. But no; money was as immaterial to him as glory, and his charitable liberality was too well known not to be profited by. Touraine may well be proud of having given birth to such a son, and class his name with those of Descartes, Rabelais, and Paul Louis Courrier. The memory of Bretonneau will remain as distinct from that of all others after his death as was his character during life."

A short communication read at the Academy of Sciences by M. Robinet, gives the result of his experiments on the mode in which the saline constituents are affected by congelation. It has long been known to chemists that flakes of ice formed by the freezing of sea-water, when washed so as to remove the external coating of salt, yield a liquid almost as pure as distilled water. Having in the course of certain experiments on drinking-water noticed the variations produced in the specimens under examination by freezing, he had arrived at the following conclusion—namely, that in the congelation of potable waters, the small quantity of calcareous or magnesian salts which they contain is removed in the same manner that the more soluble salts dissolved in sea-water or in any artificial saline liquid. Such is the purity of the water obtained by the melting of ice, that under ordinary circumstances it may be used as a substitute for distilled water.

The King of Holland during his stay here visited the Hopital Lariboisière, the arrangements of which (so say the official reports) elicited his warmest approbation. The King and his suite, together with Baron Larrey and the Dutch Minister, were received by the Director of Public Assistance, M. Husson, and by the physicians of the hospital. The Salpetrière was likewise honored by a visit from the Queen of Holland, who shares her husband's interest in all public charities. Her Majesty made a handsome donation to a poor woman who had reached her 100th year, and conversed very affably with many of the patients.

The somewhat too mild punishment of two years' imprisonment and a fine of 600 francs, has been awarded by the Correctional Tribunal to a miscreant of the name of Jamin, for illegally practising medicine, and thereby causing the death of a Madame Foucault, who had placed herself under his care. The accused, an uneducated man, by occupation a Burgundy vine-dresser, was what is commonly known in France as a *rebouteux*, and moreover a cancer-curer. He began to practice in his neighborhood, but it would appear without much success, as at Juigny and Auxerre his medical doings continually brought him into collision with the authorities. He therefore changed his ground, and, coming to Paris, associated himself with a regularly qualified (*proh pudor!*) physician, in order to evade the law, filling the newspapers with wondrous details of his rapid cure for cancer. His victim, Madame Foucault, the wife of a rich landowner in the Charente Inferieure, was suffering from cancer in the breast, and, attracted by his specious advertisements, applied for the promised relief. Jamin's charges was exorbitant. He demanded 18,000 francs if he attended the lady in her own country, or 7000 francs if at Paris. She preferred the latter arrangement, and placed herself under his treatment in January last. His attendance continued up to the 4th of March, when she suddenly expired. The suspicions of her attendants that she had been poisoned led to the performance of an autopsy, when the latter fact was verified and accounted for by the discovery of large quantities of orpiment lodged in incisions purposely made in the diseased breast. Jamin was at once arrested, and, of course, condemned. The physician who had countenanced the charlatanry of this ignorant quack, declared that the secret of the remedy had never been communicated to him. He very properly got a severe rebuke from the President.

I paid a visit to the Hotel Dieu yesterday morning and was never on any previous occasion so much impressed by the manifest unhealthiness of the old building. The walls of the staircase are blackened with smoke, the carbonaceous deposit of which contains, doubtless a full proportion of such organic material as, according to the excellent report of M. Chalvet, may be scraped off in handfuls from the plaster in certain hospitals, and which, in the case of the Salle St. Augustin, at St. Louis, amounted to thirty-six per cent. of the whole weight removed by the brush. A few francs' worth of whitewash might satisfactorily settle the question of embellishment, and possibly also have some beneficial influence upon an epidemic of puerperal fever at present raging in the wards. In the *service* of M. Trousseau I saw one woman *in extremis*, and I was shown, under the microscope, a specimen of her blood, which contained a quantity of pus-cells. The air of the ward was generally hot and oppressive, and the aspect of the patients, with few exceptions, pasty and cachectic.

Your readers may possibly remember that, in an account which I gave you of the strange malady so often miscalled paralysis, locomotory ataxy, it was stated that up to that time no coincident pathological lesion had been recognised in any portion of the nervous system. M. Duchenne (de Boulogne) now informs me that, from more recent researches, he is induced to connect this malady with certain changes in the nutrition of the posterior roots of the spinal nerves, the microscope having revealed their atrophic condition, and a deficiency of the nerve-tubes in this region.

A somewhat bitter correspondence between M. Ricord and M. Viennois of Lyons is at present occupying public attention. The latter having criticized pretty freely the two clinical lectures delivered by the great syphilograph at the Hotel Dieu in January last. M. Ricord has thought proper to expostulate with his former pupil upon the tone and purport of his observations. M. Viennois' answer is far from pacific, and will most probably provoke a sharp retort; but as there exists without doubt, under the surface, some personal questions, it is to be hoped that matters may go no further.

Several of the medical journals quote with astonishment a fact recently announced in an English paper, with reference to the amount of syphilis existing in the British army. According to the latter authority the statistics of the year 1859 proved that out of every 1000 soldiers in England, 422 had been under treatment in hospital for syphilis; while the proportion for Paris is quoted at 34, and for Brussels at 67. This calculation, which would tend to establish the ratio of frequency in France, Belgium, and England as 1, 2, and 12 for each respective country, appears to be especially contested by the *Presse Medicale Belge*, and an appeal is made to the statistical researches of M. Vleminckx, Inspector-General of Military Hygiene, in order to prove that the venereal disease is far more rare in the Belgian army than in those of either France or England.

The Academy of Science has received an official report of the analysis of water from the Artesian well at Passy, made by M. M. Poggiale and Lambert. The following are the chief conclusions of this report:—1st. That the water from this source bears a great resemblance to that of the well at Grenelle. 2ndly. That it contains no oxygen, and is alkaline in reaction, but contains a smaller proportion of calcareous and magnesian salts than good drinking water. 3rdly. That its high temperature, strong taste, absence of air, and the limited proportion of carbonic acid it contains, are all obstacles to its use for drinking purposes. 4thly. That for public uses, such as the watering of vegetables, supply of steam boilers, and washing, this water is preferable to that of most springs or rivers.

Amongst the various papers of interest communicated to the Academy of Sciences on Monday last was a memoir relative to the substitution of carbonic acid gas for chloroform as an anæsthetic agent. The author, M. Ozanam, four years ago suggested the employment of this gas in painful surgical operations, and stated that it was in action as effectual as, and less dangerous than, chloroform. The case which is the present memoir serves as a *cheval de* *bataille*, is that of a young man affected with deeply seated abscess in the lower and inner part of the thigh. As it was found necessary to divide a considerable thickness of tissue before exit could be afforded to the pus, the patient was placed under the influence of an anæsthetic—in this instance, carbonic acid gas. An india-rubber bag was filled with a mixture consisting of three parts of gas and one of common air, which the patient was made to inhale by means of a mouth-piece held at a short distance from the face, so that the proportion of atmospheric air might be considerably increased during the process. At the expiration of two minutes, during which time the breathing became more rapid and the face covered with perspiration, insensibility was complete, and the operation satisfactorily terminated, consciousness returning the moment the anæsthetic inhalation was discontinued. To those who have witnessed the well-known experiment on the dog in the "Grotta del Cane," at Agnono, near Naples, the insensibility will be no matter of wonder; but the question of the applicability of carbonic acid in a general way to surgery is quite another affair, and one the solution of which has been left to the judgment of MM. Andral, Velpeau, and Cloquet.

The abrupt termination of the late academical discussion on the origin of vaccine and its pointless conclusions have been ill-received by the medical press and with good reason. The M'Clellan-like caution and cunctation which wait upon our academical decisions are fatal to that reputation for infallibility which every branch of science has some right to share in public opinion. I really believe that if the learned body talks a little less, it might do a great deal more.

In a work lately published by M. Gastineau, entitled "La Comèdie Sociale au Dix-Neuvième Siècle," there is a curious statistical account of suicides in France. "It has been calculated," he says, "that the number of suicides committed in France since the beginning of this century is not less than 300,000; and the estimation falls perhaps short of the truth, as no exact account has been kept previously to the year 1836. From 1836 to 1852, that is to say in seventeen years, no less than 52,126 suicides occurred, giving an average of 3066 each year. In 1858, 3903 took place, 853 women and 3050 men; and according to the last statistics, during the year 1859, 3899 persons killed themselves, of whom 3057 were men, and 842 women.

Although the verdict given at the Brompton Hospital relative to the utility of the hypophosphites in phthisis was of an unfavorable character, a fact has come to my knowledge which demonstrates that our Transatlantic brethren are very far from participating in the opinions or prejudices which the profession here and in England have more or less adopted since the period at which those experiments occurred. I am informed by M. Swann, the chemist, who seems to enjoy a sort of special monopoly in the manufacture of these drugs, that his house yearly sends many hundred weight of these formerly neglected preparations to the American markets, where they meet with ready sale. To use an expression common "on 'Change," Hypophosphites are *brisk*." Whilst on the question of relation between demand and supply, let me note the important fact that, whereas, at one time, the increasing rage of mineral hydrotherapy in France bid fair to exhaust our existing resources, the praiseworthy efforts of landowners all over the country have dispelled any such gloomy apprehensions. Handbills, circulars, newspapers, and gigantic placards daily announce to the suffering public the recent discovery of some St. Roman's well or other, the healing virtues of which are as boundless and comprehensive as are the attributes of the vegetable pill." Thus late in the day, like a duck of slowly developed instincts, *quackery* has taken to water. Hardly a single parish, from the Vosges to the Pyrenees, but posesses its own miraculous spring. The handbills and circulars above referred to, of which I might form a curious album, are for the most part worded in the same formula, and illustrated according to the same model.

The sanguine artist depicts in flaming colors the portrait of the *etablissement.* The favorite stile of architecture appears to be a combination of the florid cottage charlet order, tempered with a dash of Grecian. A portico with stuccoed columns, flanked and overshadowed by a many-gabled roof, with an accompaniment of latticed windows and open balconies, mostly characterizes these temples of Hygeia. The pleasure grounds, or jardins Anglais, are neatly laid out as kitchen gardens, and between the rows of tastefully disposed cabbages, groups of elegantly dressed and gratified valetudinarians are seen gracefully to beckon the sceptical sufferer to a participation in their hygienic privileges.—*Lancet.*

Induction of Premature Labor.

BY C. D. MEIGS, M. D.

IN a letter to the editor of the *American Journal of Medical Sciences*, Dr. Meigs observes:

I am not rarely consulted by medical gentlemen at a distance on the subject of premature labor and on forced abortion supposed to be rendered necessary by an ascertained deformity of the pelvis. Having had two such letters to answer this week, I considered that it might comport with the purposes of your excellent journal to say what appears to me to be the most advisable method in such cases. If you should publish this note, it might not only prove acceptable to some of your readers, but it would save my time, in the way of answering inquiries.

Dr. Karl Braun, of Vienna, proposed, a few years ago, to open the os uteri by means of what he called a *colpeurynter*, which is a small, delicate bag or bladder composed of vulcanized rubber, to which is attached a syringe and a stop. This bladder, not bigger than a walnut, if introduced within the vagina, may be distended by means of a syringe with tepid water or air. It may be inflated or distended so as to become equal in size to a small fœtal head, and if the distention be gradually and very slowly effected it will not necessarily produce any distressing or painful sensation.

Now, as the uterine extremity of the vagina arises from the outer circumference of the cervix uteri, it is clear that such a distension as above supposed could not fail after due time to draw the walls of the cervical canal outwards, and so diminish the antagonism of the cervix and os uteri to that of the fundus and corpus uteri. This very condition of lessened resistance is all that is requisite in the case, because, as soon as the power of the fundus and body becomes preponderant, it will begin to force the ovum downward, and at length, after dilating the cervix and os, expel it. I apprehend the method to be in all cases infallible—the condition being that the colpeurysis shall be properly affected.

To bring on a forced abortion in labor by the use of the stilette, or by injecting different medicinal articles or gasses into the gravid womb, appears to me to be an encroachment, by medical people, upon those rules of art within whose sacred pale we may be held blameless, whereas we are not without blame when we transcend those barriers that are so clearly defined in our collegiate diplomas. Witness the instant death that recently occurred at Edinburgh, from injecting carbonic acid into the uterus, as related in your last number! But to gently remove the retaining power of the os and cervix by a moderate and reasonable colpeurysis, is really to do no violence to any tissue, the operation being merely to suspend an antagonistic force, thus rendering the method of colpeurysis the simplest and safest possible, and certainly unfailing in success.

Inasmuch as operations performed for the induction of premature labor, and of abortion, are not without risk to the patient, and as it is well known that there are wretches who are so abandoned as to desecrate the profession of medicine, and spurn their own honor in the low calling *teneros avellere fœtus*, I conclude that no regular and reputable member of the body will ever consent to institute such operations as this I propose without the advice of a proper medical consultation; this is a matter of such great import to us all, that I consider it incumbent on the American Medical Association to take such order upon it as their wisdom may suggest. To lose a patient under any circumstances, is a source of grief to the practitioner; but to lose one subjected, without consultation, to the operation in question, can only be fitly denoted as a disaster. Our diplomas endow us with authority to practice within the rules of an art—and it ought to be enacted as a rule of practice not to do these things without consent of a consultation. Such a rule would restrain much looseness of conduct on the part of some of the brethren; and might go even so far as to improve their morals, as in the admitted tendency of all salutary laws. I trust that you, Mr. Editor, who are a leader in things practical and æsthetical in our calling, will readily agree with me that it is neither safe nor decent for any single physician to order and perform one of these operations. Such sentiments, if known to be held by our great and powerful press, would do more good, perhaps, in the way of purging our brotherhood from these defilements, than half a dozen convictions and sentencings by the law courts.

Though I have drawn out this note to a greater length than I designed, I ought not to omit the injunction of deferring the operation until after the period during which the ovum is covered up completely with its capsule called the decidua. Now, it is known that the whole ovum escapes from the deciduous investment or capsule at the one hundred and fifth day, or thereabout. If one would force on an abortion before that date, the deciduous capsule, which consists of the tubular, glandular mucous membrane of the womb, must inevitably be ruptured or wounded, which is equal to a wound of the womb itself; but, after three and a half months, the ovum, which is at that period wholly escaped from the decidua capsule, may reasonably be expected, by means of the colpeurysis, to be expelled whole and unbroken, in which case the risk to the woman is much diminished, not only because the entire product of the conception is thus eliminated, but also because no heedless and hazardous violence is done to the membrana decidua.

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MEMORIAL TO THE LATE JOHN HUNTER.—A beautiful memorial tablet has been placed in the nave of Westminster Abbey, to the memory of the above distinguished physiologist. The memorial, which is of polished granite inlaid with brass, bears the following inscription:—"Beneath are disposed the remains of John Hunter, born at Long Colderwood on the 13th of Feburary, 1728. Died in London on the 10th of October, 1783. His remains were removed from the church of St. Martin's-in-the-Fields to this Abbey on the 28th of March, 1859. The Royal College of Surgeons of England have placed this tablet over the grave of Hunter to record their admiration of his genius as a gifted interpreter of the Divine power and wisdom that work in the laws of organic life, and their grateful veneration for his services to mankind as the father of scientific surgery."—*London Lancet.*

Professor Trousseau on Diphtheria.

THE following views in regard to this widely prevailing disease, recently published by M. Trousseau in his *Clinique Medicale de l'Hotel-Dieu* (Paris, 1861), cannot fail to interest our readers:

Diphtheria is *par excellence* a specific malady, contagious in its nature, manifesting itself both on the mucous membranes and on the skin, presenting the same characters in either locality. Diphtheria has, in truth, this in common with certain specific and contagious maladies, as the eruptive fevers and syphilis, but with this difference nevertheless, that it only affects the external integument on the condition that it be denuded of its epidermal covering. (p. 212.)

The most common form of the disease is that which specially favors the pharynx and the air-passages. Known to and described by authors of past ages, it has served as the type for the *Treatise on Diphtherite* of M. Bretonneau.

The disease shows itself occasionally in the malignant form, destroying life by general blood-poisoning, after the manner of septic and pestilential maladies.

Pharyngeal or Simple Diphtheria is met with in all climates, at all seasons; sparing no period of life, it yet most frequently attacks young subjects. M. Trousseau gives this description:

"Commencing by redness of the pharynx more or less well marked, by swelling of the tonsils, more frequently of one only, a whitish circumscribed patch soon shows itself, formed at first by a layer resembling coagulated mucus, half transparent, which thickens itself, widens, and very rapidly takes on a membraniform consistence. This exudation in the first moments of its formation is very readily detached from the mucous membrane, to which it only adheres by fine prolongations which penetrate into the muciparous follicles." (p. 315).

The mucous membrane beneath the deposit is noted as usually sound, hardly presenting other alteration than slightly increased vascularity; ulceration of this structure is exceptional. After some hours, the pseudo-membrane begins to increase, the tinge deepening to a yellowish-white; it just covers one tonsil; then the uvula shares in the deposition, and later, the other tonsil with the posterior wall of the pharynx becomes involved.

The lymphatic glands at the angle of the jaw are swollen from the commencement, and are, therefore, valuable as aids to the diagnosis. Fever, at first sufficiently marked, soon subsides. The fetid odor from the mouth, and the greyish tint of the exudation, have led observers to the opinion that gangrene was present—hence various appellations expressing this belief. The Professor in his wide experience has met with but three instances where actual gangrene existed.

The development of croup from exclusion of the disease to the larynx forms the most common ending of this form of the affection, as well in sporadic as in epidemic cases. M. Trousseau expresses a decided opinion that, in far the majority of cases of croup, the malady will be found on close inquiry and examination to have originated in the pharynx. It is specially mentioned, and the fact has, perhaps, met with too little attention when different plans of treatment have been compared, that "the difficulty of respiration is intermittent." This a positive character of the affection—a part of its natural history, occurring whether the disease has been subjected to treatment or simply left to itself.

Malignant Diphtheria.—In this form of the disease exudation-patches appear on one or other tonsil, differing usually in no respect from the false membrane of ordinary pharyngeal diphtheria; sometimes they may present special characters, may exhibit a yellowish or reddish tinge, while the tissues beneath are often œdematous and of a livid red color.

There is early and often even excessive swelling of the glands about the jaw; this forms one of the most serious indications of the malignant character of the disease. Erysipelatous redness of the skin over the swollen part is not unfrequently met with, giving the impression sometimes that there must be deep-seated abscess.

M. Trousseau insists strongly on the blood-poisoning of this variety. Life is destroyed, not by any local manifestations, but by the effect on the system as a whole. The disease acts as a septic poison. In proof of these tendencies are noted the alteration in the physical characters of the circulating fluid the extreme proneness to hemorrhages, waxy pallor of the skin (by no means. however, dependent on mere loss of blood), and the ultimate termination of the scene by syncope.

A section is devoted to the different situations which may be occupied by the false membrane; and the caution is strongly given by the author, that under no circumstances should the external cuticle be destroyed or removed. If this be done, a fresh nidus is at once afforded to the disease.

Whether, however, the simple or the malignant form be present, the essentials of the disease are the same; the one may generate the other, and the most simple case may give rise to another of the most malignant type.

M. Trousseau has no doubt whatever as to the contagious character of the affection.

A sketch of the paralysis consequent on diphtheria is then given. The paralytic condition may be *severe* or *mild.*

To trace the course of the latter form: the palate curtain is usually the first structure where the loss of muscular power is evident; coming on without warning during convalescence, the velum palati hangs pendent; direct excitation has no effect, nor is any movement induced by dispressing the tongue, etc. When the limbs are affected, the sensibility is first interfered with; tingling and formication are the earliest symptoms; subsequently the motor power is found to be more or less at fault. The special senses are occasionally affected.

It would seem that the explanation must so far be found in the disturbance of the nervous system as a whole, consequent on the poisoning of the blood; the condition, therefore, parallel to what is sometimes seen after fevers, etc.

Treatment.—Although there be actual inflammation of the tissues involved, yet neither can the antiplogistic treatment nor any of its modifications be employed with advantage. If such methods are resorted to, the only effect will be still more to reduce the already debilitated patient.

"Topical medication, despite the opposition with which it daily meets, is *par excellence* the treatment of diphtheria." (p. 404.)

Astringents and caustics have been resorted to from the earliest appearance of the disease.

Alum and tannin are of great value, blown on the throat in powder, or employed in solution. The more ordinary caustics, especially hydrochloric acid, are of essential benefit, applied early in the disease and with sufficient freedom. Should there be indications of commencing laryngeal affection, the local application of solutions of nitrate of silver to the upper part of the larynx, and to its interior even, may be employed.

The *general* treatment must be tonic and reparative. The administration of food will occupy the first place frequent; and liberal supplies. The forms of medicine of most value are quinine and preparations of iron, especially the perchloride and the syrup of the citrate and the tartrate.—*Brit. Med. Jour.*

ORIGINAL PAPERS.

Amputation at the Hip Joint—Hip Disease—Epilepsy.

BY ARTHUR B. STOUT, M. D.

THE amputation at the hip joint which I propose to describe was performed three years and four months ago. The relation of important surgical operations is often shorn of much of its value in consequence of the absence of a full statement of the result, and a want of knowledge of the amount of benefit derived therefrom. In the present case, the subject of the operation was restored to a comparatively excellent state of health, removed his residence to another country, and died in the summer of 1860. He consequently survived the operation more than one year. His previous medical history has been clearly and concisely furnished me, by the kindness of his brother, as follows:

"Theodore Abraham Labatt was the seventh son and eighth child of parents born in Charleston, South Carolina, and was born on the 14th Dec., 1838, in New Orleans, Louisiana. The family may be accounted healthy generally, as he is the only child of nine, born between the years 1826 and 1844 who has yet met with death, and the children of his brothers and sisters are all healthy. The rest surviving him are free from disease or complaint of any kind.

"In the summer of 1843, he complained one day, while exposed to a hot sun, without his hat, of faintness and discomfort. The next day he was attacked with a congestive fever, which remained with him for about three weeks. On his convalescence, he was speechless for about two months; after which, his speech returned gradually, as if he was just learning to speak anew.

"As soon as he was able to move around, a paralysis was observed of his entire right side, and he never recovered the use of his right arm for any purpose.

"In a year or two, he complained severely of the pain of walking to and from school, and would sit down frequently on the road side to rest, which resulted in his being detained at home.

"One day his sister lifting him on her lap, playfully, caused him much pain. Attention was drawn to it by a terrible scream of anguish. An impression has been created that at that time the limb was wrenched by an unfortunate strain from its socket, as it soon became deformed.

"He was continually treated by physicians of the allopathic system. In a few years, a running issue formed there, which continued until the operation was performed. He suffered in that condition for years. Came to California in August, 1854.

"After his arrival in California, he complained often of severe and curious sensations in his nose, which was the commencement of an epilepsy, which gradually increased. It began with a reddening in the face, then a spasm and contraction of the body, and in the year 1856 it culminated in epileptic fits. At first it was simply a rigid contraction of the muscles and the discharge of large quantities of saliva, but eventually resulted in a complete prostration of the faculties, and he would lose all control over his body.

"In February 1859, you commenced treating him. On May 11th, 1859, you operated upon him.

"In August of the same year he returned to Louisiana. His arm then became diseased, and the epilepsy returned. In the summer of 1860, in one of these attacks, he expired. "H. J. LABATT."

Mr. Labatt was therefore nearly 21 years of age at the time of the operation. Had been an invalid since 1843; was about five years old when attacked with congestive (cerebral) fever, and seven to eight years old when the signs of hip disease became apparent. At this age, the accident from being suddenly lifted from the ground gave a new and confirmatory impulse to an inflammation already established. It appears that a lesion of the brain remained after the congestive fever, which caused an arrest of development of the right side of the whole body. The energy of the left side became too great for the strength of the right. Mechanical pressure may, therefore, be given as the exciting causes of the hip disease.

When in February, 1859, Mr. L. was entrusted to my care, epilepsy was the disease which chiefly engaged the attention of his family, and it was to treat this malady that I was employed. The convulsions were recurring very frequently; the intellect, though yet vigorous, was commencing to yield, and life becoming an intolerable misery. My treatment from February to May 11th, the date of the amputation, was antiperiodic and tonic. It consisted alternately of quinine, iron, ext. fl. cinchona, arseniate of quinine, ammoniated sulph. of copper. As anodynes, valerian and morphine were relied upon. The strictest attention was bestowed upon the digestive organs, and the best alimentation allowed. The original disease having been a cerebral fever, very probably of a malarious type, and cerebral disturbance with epileptoid complications, at epochs whose period I could only guess at, I determined to make quinine and iron the basis of treatment. This view was encouraged by the long-continued exhaustion, which a debilitating disease like coxalgia had occasioned.

The effect of this course was promptly beneficial. The intervals of attack were greater, and the general health rapidly improved. It was at this moment that the hip disease became aggravated, accompanied by the most intense pain and agony. In May, the epileptic convulsions returned with renewed frequency, and despair marked the expression of the patient. It was evident that the newly excited irritation of the local disease in the joint was reacting on the brain, and kindling anew that peculiar irritation which manifested itself in epileptic convulsions. The removal of the local irritation by amputation, dangerous as it appeared, was the only alternative which presented. Under the double disease the patient must soon perish exhausted in the midst of inexpressible anguish. This alternative I determined to adopt, in the hope and with a fair prospect that the brain thus relieved would rally, and even throw off the epileptic tendency, and the patient might yet enjoy an indefinite period of comfortable existence. With a patient thus prepared by a three months' previous treatment, and his family forewarned of the immediate imminent dangers, I proceeded on the 11th of May to the operation.

Being brought with care under the influence of chloroform, he was placed on his left side. The knife was introduced one and a half inch above the trochanter major perpendicularly to the ilium, drawn downwards in a straight line over the summit of the trochanter major on the line of the femur, and down to that bone; transfixed the thigh precisely at the point where the inferior margin of the gluteus maximus traverses upon the thigh to its insertion in the femur; carried along the posterior margin of the femur downward three inches, and then curved backward to form the posterior flap; again transfixed the thigh opposite the same insertion of the gluteus maximus, on the anterior margin of the bone, carried down in the same manner, and curved forward to form the anterior flap; exchanged the catlin for a short strong knife; circumscribed the joint by one incision, which laid the articulation completely open. As the round ligament was already destroyed by disease, no further impediment existed, and the head of the bone was easily lifted from its socket. The femoral artery having been admirably compressed by my friend Dr. Whitney, was then quickly tied, as well as all other accessible vessels. The suture threads were now immediately passed, but not drawn; a fine piece of cambric muslin dipped in cold water was introduced over the entire wound, to prevent the adhesion of sponges to the flesh; and then introducing in the folds of the wetted cloth several fine sponges, the wound was quite firmly bandaged. After a lapse of about four hours, this dressing was removed without the slightest pain from adhesion of sponges, and was dressed as usual, but without the necessity of again offering chloroform to introduce the suture stitches. Immediately after the operation life for a time seemed to tremble in the balance, uncertain whether or not to revive, or take its final flight. At the time of the second dressing, by the use of gentle stimulants and several grains of opium, Mr. Labatt was quite resuscitated and even cheerful.

The head of the femur was one half absorbed, the destruction extending into the neck and on the shaft for the space of two inches. The margin of the acetabulum abraded and sharpened with osseous asperities, which were carefully scraped down. The bottom of the acetabulum was so nearly perforated, that pus was subsequently passed into the pelvis behind the iliacus int., and found an exit. I consider this a most fortunate occurrence, for by it the immense wound was secured from the intrusion of pus formed in the acetabulum in the necessarily protracted repair of so profound a lesion. So rapid was the entire closure of the external wound by first intention, that in three weeks from the date of the operation Mr. Labatt was sufficiently recovered to ride out in an open buggy. His cure was for a time delayed by the passage of pus through the acetabulum into the pelvis. The matter burrowed its way behind the iliacus int., and pointed, against gravity, between the anterior superior and inferior spinous processes of the ilium, where a lancet puncture gave it free exit. In the month of August, three months after the amputation, Mr. Labatt sailed from San Francisco for New Orleans. During all this time he enjoyed entire immunity from epilepsy, was well, and was happy. The voyage to New Orleans was accomplished without accident. He thence proceeded immediately to the watering places across Lake Pontchartrain, where he remained several months. He then went to reside at Natchitoches, on the banks of the Red River. We next hear of him at New Orleans again under the care of Drs. Stone and Chopin. Disease of the wrist joint, with attacks of epilepsy occasioned him much suffering. Extensive incisions appear to have been made, and he returned to Natchitoches with portions of bone still exfoliating from the wrist, and with fits of epilepsy, in one of which he died in September of 1860.

It is difficult to analyze the vital actions and the pathology of the case after the arrival of Mr. L. at New Orleans, and yet more difficult to prove by facts the impressions which the results elicit. I was much chagrined when I was informed of the necessity which compelled him to leave the more healthful clime of San Francisco to reside on the malarious delta of the Mississippi and the borders of the Red River, while I cannot repress the conviction that had he remained in California his life would have been much protracted. The picture of the second epoch looks like a repetition of that of the first series of diseases: return to the original malarious region; congestive fever at Natchitoches; cerebral lesion; epilepsy; wrist disease, instead of hip disease. The cerebral injury would fall on the same already enfeebled and predisposed cerebral functions, and hence the same vital degeneration which engendered hip disease would originate a similar one in a joint remote from the vital centre, and also on the right side of the body.

It would be interesting here to enter into the inquiry how this peculiar febrile condition of the brain predisposes to diseases of the joints, but space does not permit. Pathologists may, however, obtain a clue to many of the obscure white swellings which attack the principal articulations. One inference may be safely drawn, that in California the amputation at the hip joint may be attempted with a greater prospect of success than in almost any other country. Elsewhere the surgeon would hesitate; in the large capitals of Europe, he would entirely forbear. In our more favored clime he may boldly advance, and rescue from impending death many an unfortunate sufferer.

In concluding, I have to offer my warmest thanks to Drs. Whitney, Bowie, Berthody, Gray, Holman and McNulty, who aided me in this operation with their kind and valuable support.

Case of Uterine Hydatids.

BY G. HEWSTON, M. D., OF SAN FRANCISCO.

On the 22d of May, I was called to see a Mrs. Z——, aged 22 years, a mother of one child, who was suffering from hemorrhage. According to her statement, she was four months advanced in pregnancy.

Her face presented the appearance of one who had lost much blood. On examination, I found her inferior extremities and abdomen œdematous. She then informed me that her flow was not as great as it had been, and that it occurred mostly at night—every evening for six weeks, her flow had been much greater than during the day. She had been under the care of a German physician, who supposing it to be true pregnancy, did nothing.

I ordered her to keep quiet, and occupy a recumbent position as much as possible, and prescribed Tinct. Ferri murias, in ten drop doses. 23d. Hemorrhage abated. 24th. Her face much swollen; respiration labored; pulse 130. She complained of a troublesome cough, not accompanied by any expectoration. The abdomen and left inferior extremity greatly increased in size, while the right extremity was diminished and soft. 25th. Symptoms same as yesterday, with no flow of blood from the vagina. 26th. Hemorrhage entirely ceased; urine flowing freely; the œdema much the same; her spirits good, and quite hopeful of recovery.

28th. Hemorrhage returned, dark colored and offensive.

29th. Hemorrhage increased, still dark colored and offensive.

30th, at 1 a. m. Called in haste, found her lying in a pool of blood and exsanguious. The hemorrhage had ceased a few moments before I arrived. She was asleep when the active flow occurred; a feeling of coldness awoke her, and to her surprise she found herself unable to move, the bed, floor and everything around her saturated with blood. On examination, found the os uteri patulous and without any coagula in it. Pulse imperceptible at the wrist; face swollen, eyes everted, lids almost entirely closed, lips enlarged and ala of the nose distended to their utmost; respiration short, sighing and rapid. After watching her for three hours, and applying suitable remedies to induce reaction and sustain the little vital force remaining, I inserted a tampon saturated with tinct. ferri cha. and water, with strict injunctions to continue the beef tea, brandy and ammonia, I left her.

Returning at 9 a. m., found that she had expelled the tampon, and with it a mass which proved to be hydatids. Very little hemorrhage had accompanied this discharge. On passing the finger into the vagina, found it filled with a similar mass, which I removed. The mouth of the uterus was distended to the size of a half dollar, and in it was a clot. Having removed all that was thus expelled from the uterus, and finding that there was no amount of hemorrhage, I called on my friend Dr. Gray to see the case with me, as I fully expected the patient to die, so perfectly exhausted as she was from her previous hemorrhage and the loss of blood this morning.

A bandage and compress were applied over the uterus, the beef tea, brandy, and ammonia given freely. I had during the early part of the morning given wine of ergot so as to maintain uterine contractions. The hemorrhage did not again recur.

The urine yielded albumen in abundance. Under the microscope the white and red blood corpuscles were found, the white predominating. The urine examined was drawn from the bladder through a perfectly clean catheter, on the morning of the 31st. The patient was placed on bark and iron, with the regular amount of stimulants. I omitted above to state that a microscopic examination of the blood thrown off with the hydatids was made, and presented the white globules in great excess, and a corresponding deficiency of the red corpuscles.

June 6th. Œdema abated, and the patient recovered so far as to be able to sit up in bed. At the present time (Sept. 1st) perfectly well, having her regular menstrual flow each month. The amount of hydatids thrown off in this case filled an ordinary pail half full; the estimated measure being one and a half gallons.

Quinine in Smallpox.

BY S. M. MOUSER, M. D.,
Physician to the Smallpox Hospital, San Francisco.

JUNE 11th, 1856, I read an article on this subject before the Sacramento County Medical Society, founded on observations made in 1853. The article referred to was published in the first number of Dr. Morse's *California State Medical Journal*, July, 1856.

At that time I was fully convinced of the efficacy of the remedy, and resolved to give it further trial should opportunity offer. It has not been my fortune to meet with an opportunity to test it since, until March of the present year, when I took charge of the Smallpox Hospital in this city. My first observations having been made in a malarious district (Sacramento), left me in doubt as to the propriety of pursuing the same treatment here, where intermittents are not so prevalent, and other diseases seem to be much less modified by malarious influences.

For the first two months I did not administer quinine to my patients, except where there seemed some special indication for it. I found twenty-nine patients in the house when I took charge of it, and admitted sixty more during the two succeeding months, making a total of eighty-nine treated during this time. Of these, forty-four were discharged cured, eighteen died, and twenty-seven remained.

At this time (May 20th) I commenced the use of quinine, and administered it in two grain doses every three hours, to all of my patients, from the time they entered the house until all febrile symptoms had subsided, and dessication was fully established. After which I ordered the same dose three times a day until they were entirely well. From May 20th to August 1st, twenty-five were admitted, making the whole number treated fifty-two; of whom forty-five were discharged cured, one died, and six remained.

During the prevalence of this epidemic, I treated thirty cases outside the hospital, nearly all on the same plan, without the loss of a single one.

Erysipelas prevailed to a considerable extent in the hospital, following closely the subsidence of smallpox, but was much less frequent after the adoption of the quinine treatment.

How much of the difference in these results depends on medical treatment, and how much on circumstances other than this, I do not pretend to say. We should not lose sight of the fact that an epidemic on the decline is said to be less fatal than at its commencement. There is one other circumstance that probably had an important influence in reducing the mortality in the last two months, which is the difference in the accommodations first and last. When I took charge of the place, eight patients were crowded into each room, about fourteen feet square; but sometime in May, ample provision was made for room, so that there was no more crowding.

I used but one local application to prevent pitting, viz: a liniment of linseed oil and lime-water, which was applied in some cases with a brush, and in others by saturating with it a mask made of lint, and covering the face with it, which latter seems to me the preferable mode. In some cases, the pustules were punctured and the matter pressed out about the fifth day of the eruption, then covered with saturated lint. In these the pitting was least of all, but none of my patients were badly marked. In some, where the scabs were early disturbed, there were secondary scabs formed, which were very troublesome, resisting all local applications, sometimes adhering for months until removed by force, having fastened themselves by extending deep into the sebaceous glands of the nose. Some little bleeding followed their removal. A strong solution of alum was applied, and the scabs were not renewed.

The difficulty of diagnosis is proven by the number of patients sent to me who were laboring under other diseases. Most of the cases so mistaken proved to be measles, of which there were quite a number; one or two of syphilis, and one, to my mind more difficult of diagnosis than any, was a case in which there was an eruption following the administration of balsam copaiba. This eruption was to the touch precisely the same as that of smallpox, having a feeling as if small shot were under the skin. The hoarseness and cough, so peculiar to measles, were wanting, and there was moisture of the skin, a condition which seldom if ever exists in this stage of smallpox. I regard this last a matter of great importance in diagnosing between measles and smallpox. I did not see during the epidemic a single moist skin in the commencement of the latter disease, while in measles it existed in every case.

A word in regard to pressure as an ectrotic. A patient came to the hospital from a distance on the second day of the eruption. He had ridden a hard-bitted horse a distance of fifteen miles, wrapping the reins tightly around both hands. Where the pressure was made the eruption seemed to be cut short, not even amounting to vesicles. Nothing but echymosed spots remained here, while on all other parts of the skin it ran the usual course without interruption.

EDITOR'S TABLE.

Health of San Francisco.

To establish the ratio of mortality in a community, it is necessary to have accurate statistics respecting its population and deaths. Unfortunately, there is, perhaps, no city on this continent of the importance and size of ours, where so much neglect and carelessness exists in this matter. If there is a law requiring uniform and proper death certificates, it is not generally complied with. Hence, our mortuary records are a disgrace to San Francisco. To remedy this, a Registrar's Office, similar to those in other large cities, should be established without delay by our municipal authorities.

General statistics, informing us annually of the character—the mode of termination—the season of various diseases, and the different ages of their victims, are, to us, of primary importance. They fix our attention on the principal maladies, and lead us to the study of their causes, cures, and means of prevention.

Although without satisfactory records respecting the *causes* of death, we have reason to think that the whole number of *interments* is correctly given. We shall, therefore, endeavor to derive some information from this source.

And first, let us inquire into the population of San Francisco, as a basis for our calculations. Mr. Langley, the compiler of our City Directory, estimates it as follows:

Men	32500
Women	18000
Children	28000
Chinese	3000
Negroes	1800
Floating population	7000
Total	90300

This is considered rather below than above the mark, and does not, we are informed, include the soldiers in our barracks and forts, and the large population in the environs. But, as our cemeteries are used by all, we will not be far from right in basing our calculations on a population of 100,000.

The following table gives the mortality for the preceding twelve months:

In September,	1861	164	In March,	1862	207
,, October,	,,	154	,, April,	,,	174
,, November,	,,	165	,, May,	,,	152
,, December,	,,	195	,, June,	,,	160
,, January,	1862	173	,, July,	,,	199
,, February,	,,	218	,, August	,,	222
				Total	2183

Therefore, for the last year, our rate of mortality has been only 1 in 45.81, a very satisfactory ratio, and one which will compare most favorably with that of other localities, as will be seen by the following annual mortuary averages of some of the principal cities of North America and Europe, as set down by Professor Dunglison: Philadelphia, 1 in 45.68; Glasgow, 1 in 44; Manchester, 1 in 44; Geneva, 1 in 43; Boston, 1 in 41.26; Baltimore, 1 in 41; London, 1 in 40; New York, 1 in 37.82; St. Petersburg, 1 in 37; Charleston, 1 in 36.50; Leghorn, 1 in 35; Berlin, 1 in 34; Paris, Lyons, Strasburg and Barcelona, 1 in 32; Nice and Palermo, 1 in 31; Madrid, 1 in 29; Naples, 1 in 28; Brussels, 1 in 26; Rome, 1 in 25; Amsterdam, 1 in 24; and Vienna, 1 in 22½.

San Francisco, it will be perceived, stands at the head of the list.

Gratifying as the result is to us, we are satisfied (and shall endeavor to prove) that it might have been still better.

It will be observed that our last monthly record (August) was the largest of the preceding twelve months,—amounting to 222,—being an increase of 23 over that of the month of July.

With a climate as genial as ours, with no endemic diseases, when our bills of mortality show that no extensive epidemics are prevailing, when only two cases of smallpox, three of measles, one of scarlet fever, and one of diphtheria, are reported, we might have shown, notwithstanding our rapidly increasing population, a more favorable record than that of the last, and some of the preceding months, had it not been for the large mortality among the children of our poorer classes.

During the last month, of 72 interments in the Roman Catholic Cemetery, 40 are reported for children under three years of age, and 10 still-born, whilst of 150 burials in Lone Mountain and Jewish cemeteries, there were only 37 children under three years of age, and 9 still-born. This disproportion between the Catholic and other cemeteries is remarkable, for while this month's record of infantile mortality in the latter, will compare in our favor with the ratio of other cities, the reverse is the case respecting the former. But if we reflect that it is in the Roman Catholic cemetery that the large proportion of the poorer classes of our people bury their dead, the disproportion, although very great, can easily be accounted for. The average mortality among children under three years of age, is generally over one-third of the whole. Hence, Dr. Churchill very appropriately remarks: (chapter 1, *Diseases of Children*) "A very limited acquaintance with statistics, or even a limited experience, is quite sufficient to convince us of the high degree of mortality which prevails among infants and children; literally they spring up and are cut down like the flowers of the fields." From Dr. Granville's tables of the mortality among the poor of London, we find that nearly one half, or 458 in every 1,000 children under two years of age died." In Mr. M'Clean's visit to St. Kilda, he states that "*eight out of every ten* children die between the eighth and twelfth days of their existence;" and this, he conceives, is mainly owing to the "filth in which they live, and the noxious effluvia of their homes."

Let us inquire into this deplorable fact and ascertain whether we can, by wise and proper measures, mitigate the evil.

It is a popular error to believe that the maladies of children are more simple in their nature, more tractable and more easily cured than those of adults. General statistics are sufficient to prove the fallacy of the supposition. Besides the affections common to their age, children are susceptible of nearly all the other maladies of humanity. Many are the victims of diseases entailed by the parents. In the adult, a stronger constitution enables the physician to conquer disorders fatal to the infant, whose feeble frame is unable to sustain their attacks. The adult speaks, the infant is mute.

To establish a correct diagnosis, to discover the true causes of the sufferings of a child is, then, a difficult matter. And when they are recognized, how much patience, how much intelligence and experience do the diseases of infancy demand! And yet, it is for them, principally, that the nostrums of mercenary quacks and old women are resorted to. Substances injurious, perhaps poisonous, for the infant invalid, are administered in repeated doses, and the poor baby dies, less the victim of disease than the unwise remedies employed for its relief! Hence the great mortality among the children of our poor.

Besides medical attendance, children, when sick, require intelligent nursing, wholesome diet and pure air. Unfortunately these first necessaries of life are often denied to the children of the poor,—the principal sufferers in all communities. Visit their shanties, furnished with old rubbish, disdained by your servants; follow us into that narrow alley, where vice, misery and childhood are heaped together; where accumulated filth sends forth its pestilential exhalations; come with us, and answer whether the sad picture is overdrawn!

But it is not enough to point out the evil,—it is our duty to indicate,—nay, to urge the remedy: A HOSPITAL FOR CHILDREN. We are taxed, and we liberally pay for public schools, open to the children of our poor. The ladies of our city, to whom we are proud to render justice, have, in their philanthropic kindness, established, at great expense, asylums for orphans and for the deaf, dumb and blind;—and will not an effort be made to secure from death so many little ones? Hurry them from those obscure haunts. where they die for want of the absolute necessaries of life; remove them into purer atmosphere; surround them with that cleanliness which is so necessary for them; cover their feeble limbs with comfortable clothing; give them the proper medical attendance; save them from death! Humanity demands it, our country requires it—for on the childhood of the present, she rests her hopes for the future.

Some eighteen years ago our attention was called to the infantile mortality of St. Louis, Mo., in which city we were at that time residing. We then urged the establishment of a hospital for children in that place.* At that period there were but few such institutions in existence; now they are among the most useful and important charities of the great European cities. Our country, as yet, has but one, established some few years ago in the city of New York. The following extract on the subject is from a very excellent letter from Professor Charles A. Lee to the *American Medical Times*:

LONDON, July 1st, 1862.

The *London "Hospital for Sick Children,"* the first one of the kind, so far as I know, established in England, was opened in 1852, its objects being to provide for the medical and surgical treatment of poor children, to further the attainment and diffusion of knowledge regarding the diseases of children, and to aid in the training of nurses for children. The two first of these objects have been thus far very successfully accomplished. Patients laboring under any disease except smallpox are received. In the first year over 1,250, including out-patients, were treated; the report of 1862 shows that 577 were cared for within the hospital, and 10,792 treated as out-patients. The charity is free from debt, and is supported entirely by voluntary annual subscriptions. It is a gratifying fact, that although when first opened, mothers viewed the institution with disgust, they are now so eager to place their little ones within its walls, that the matron is compelled to keep a long list of patients waiting for their turn for admission. Four years ago the large house adjoining was purchased, so that there are now over fifty beds, while there is ample room for the accommodation of the nurses, and the medical staff, and the establishment of an infant nursery, in which young children are taken care of, for a trifling charge, while their mothers are at work. One object in the establishment of the hospital has not yet been attained, namely the training of female nurses. The institution, however, has been made highly subservient to the advancement of our knowledge regarding the causes, pathology, and treatment of the diseases of children. A series of valuable lectures has been delivered by the medical officers, Drs. West and Jenner, during each winter, at the hospital, which have been well attended; and the well known able work of the former, on this class of diseases, has chiefly been the result of observations made in this institution. A "*Home*" has been established at Mitcham, and another at Brighton, for the convalescent children, auxillary to the Child's Hospital, which are accomplishing great good. But notwithstanding the benefits resulting from this establishment, how inadequate is a single hospital of fifty-five beds, for the accommodation of the sick children of this vast metropolis! It doubtless relieves a large amount of human misery, saves many lives, and is a most valuable field for medical observations, and improving the treatment of the diseases of infancy and early childhood. But twenty such institutions are as much needed among this population of 4,000,000, as one. Although 88,969 out-patients and 2,274 in-patients were treated in the course of eight years up to 1858, and a still larger number in proportion within the last four years, these numbers are but a tithe of the poor sick children who have perished during the same periods in this city, for the want of such care and medical aid as this asylum furnishes.

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* St. Louis *Medical and Surgical Journal*, vol. 1, No. 12, March, 1844; and vol. 3, No. 1, June, 1845.

I have stated that this was the first hospital of the kind opened in Great Britain. Since then similar hospitals have been opened in Edinburgh, Liverpool, Birmingham, and other places in the kingdom; and well may they be multiplied, when we reflect that in every 50,000 persons dying yearly in England, 21,000 of them are children under ten years of age! Many essays have been written on the causes of excessive infant mortality, and great stress been laid very justly on impure air, want of proper ventilation, unhealthy food, neglect of cleanliness, etc, but too little has been said in regard to the ignorance of mothers, not only as respects the laws and conditions of health, but everything relating to nursing, and proper management of their children when sick. Would one-half of our population perish in infancy and childhood, were parents but even partially acquainted with the laws and facts of sanitary science? It is in vain that medical science has advanced, that vaccination has been discovered, that the conditions of health are so much better understood by the faculty than they formerly were. So long as the natural guardians of the young know next to nothing of the causes of disease or the proper nursing of the sick, so long we may expect infant mortality to remain about the same, and we know it has not diminished two per cent. for the last fifty years, and has even increased in our large cities.

Children's hospitals have been established with success in nearly twenty of the chief cities of Europe, and it has been found that they are more important to the poor as a class, than even general hospitals. The proper care of sick children requires special arrangements, and those can only be found, at least for the poor, in properly constructed hospitals. I say nothing of the tact, experience, and skill, required in the successful treatment of the diseases of young children; though no one can doubt that when studied as a specialty, this class of affections is much more successfully managed than when treated as they usually are. Dickens has very truly observed that the deaths of children are against the laws of nature; and that not against passive laws, but against the striving of every secret and mysterious power bestowed on the human baby to prevent them. What terrible abuses then must exist to cause such excessive mortality! I look with more pleasure upon the large pleasant rooms of this hospital, and the well cared for little patients, than any similar institution that I have ever visited. There was perfect order and neatness everywhere; thorough system in everything; the most assiduous and careful nursing; the highest medical skill always at hand; complete ventilation; pleasant sights and sounds; a beautiful garden in the rear of the dwelling; cheerful faces every where; no wonder, that this hospital has the Queen for its patron, and noblemen for its officers and board of managers.

I have singled out this establishment for particular notice, because I am satisfied from long experience and observation among the poor of New York, that several such asylums are much needed in that city. *One* children's hospital cannot supply accommodations for one-tenth or twentieth of the number that ought to be sent to such institutions. Of the tens of thousands of children treated annually by the physicians of our different dispensaries, how many more might be saved that now perish, had they the kind care and attentive nursing which would be extended to them in well managed hospitals!

DEATHS OF DRS. BRETONNEAU AND WAKLEY.—We have much regret in recording the deaths of two eminent gentlemen in our profession—Dr. Bretonneau, of Tours, the worthy preceptor of Velpeau and Trousseau, and Dr. Wakley, for many years the editor-in-chief of the London Lancet.

Health of Sacramento City.

ACCORDING to the Report of the Board of Health in Sacramento, there were during the month of August last only twenty-three deaths in that city. The Secretary of the Board remarks: "This low bill of mortality is the most reliable indicator of the sanitary condition of the city. It will be observed, that notwithstanding a protracted term of heat, and the pumping of the stagnant waters from the cellars into the streets, no deaths from miasmatic cause have occurred. In fact, the mortality is less than that of the preceding month, and as much as ten less than the average of the last twelve years."

From the fact that there was until recently, in a large portion of the city, much stagnant water, left from the floods of last winter, a healthy summer was not generally anticipated. However, the same immunity was noticed during the summer and autumn succeeding the inundation of 1853. But this is not extraordinary; the same sanitary amelioration has been observed, under similar circumstances, in other cities in different parts of the world, and is accounted for by the thorough washing of the surface of the land, and the covering up of decayed vegetable matter by a deposit of sand.

Another cause which generally produces an increased malignity in miasmatic districts elsewhere, viz., the turning up of a new soil, seems to have been followed by no evil consequences there, where an extensive surface of earth has been upturned for the formation of the immense levees now being constructed around the city. Among many instances of the pernicious effects of such works, we cite the following: In 1842–43, streets and roads were cut in and around the city of Hongkong. Dysentery and fevers of a very malignant character prevailed to such an alarming extent, and the mortality was so great, that the soldiers in garrison there had to be removed to places remote from the works.

Generally, in other new countries, the land has to be cleared to make way for fields and cities. A hot-bed of malaria is thus brought into action by exposing to the sun a humid vegetable soil, which had perhaps been covered for centuries. In Sacramento, this was not the case; the country around was sparsely timbered, consequently the ground was always exposed to the action of the sun, and the summers are dry.

During our late residence of four years in that city, we saw but very few malignant cases. Indeed, malarious fevers, occurring in the city and surrounding country, were generally of a very mild type, and confined principally to the lowest situations.

The following statistics, for a period of twelve years, show a striking reduction in the mortality of Sacramento, from various fevers, notwithstanding the increase of population:

In 1850	120	deaths	In 1856	23	deaths
„ 1851	55	„	„ 1857	20	„
„ 1852	123	„	„ 1858	18	„
„ 1853	65	„	„ 1859	20	„
„ 1854	43	„	„ 1860	20	„
„ 1855	27	„	„ 1861	17	„

We understand that the same favorable change has been observed in other parts of the State. It is true that several districts which were considered healthy before the introduction of water by flumes and ditches, for mining and agricultural purposes, are now visited by intermittents. However, cases assuming a malignant character are not now as common, in the country generally, as they formerly were.

From 1847 to 1852, the fevers which came under our observation in Sacramento, Bear Valley, and on the American River, presented frequently a malignant congestive type. So much was the disease dreaded, that Capt. Sutter, before gold was discovered, found it difficult to retain the white population about the fort, during the sickly season. The building up of a city has wrought the usual favorable change in that locality, and the sanitary condition of the country generally, has been ameliorated by cultivation and an improved mode of living. Formerly many of the population slept in the open air on the ground, thus inhaling miasma in its most concentrated form. Impure and stagnant water was not unfrequently used, and men were reckless of health, and exceedingly imprudent in every respect.

THE PHYSICIANS' VISITING LIST, DIARY, AND BOOK OF ENGAGEMENTS FOR 1863.—We have received from the publishers, Lindsay & Blakiston, Philadelphia, this convenient little pocket-book, which is now in general use among practitioners. For sale by Messrs. Roman & Co., and H. H. Bancroft & Co., San Francisco.

Subscriptions Received during the Month.

WE beg to acknowledge the following subscriptions received since our last issue, in accordance with the circular addressed to our subscribers:

Dr. Lewis Scher, Mokelumne Hill	$5 00
Dr. Hepburn, Mokelumne Hill	5 00
Dr. E. G. Bryant, Downieville	5 00
Drs. Williams & Westfall, Santa Rosa	5 00
Dr. D. M. Baldwin, Columbia, Tuolumne county	5 00
Dr. Rule, Napa	5 00
Dr. Parsons, Columbia, Tuolumne county	5 00

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